

National Park Service
Denver Service Center

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TABLE

YELLOWSTONE NATIONAL PARK
CANYON VILLAGE

IFB 1570-82C
PHASE II DOMESTIC WATER SYSTEM

PACKAGE NO. 141
JUNE 7, 1982
VOLUME 1

PROJECT MANUAL



NO DEPOSIT IS REQUIRED
FOR
DRAWINGS & SPECIFICATIONS
PLEASE RETURN TO ISSUING OFFICE
FOLLOWING OPENING OF BIDS

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YELLOWSTONE NATIONAL PARK
 CANYON VILLAGE
 IFB 1570-82C
 PHASE II DOMESTIC WATER SYSTEM

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N O T E

IT IS THE RESPONSIBILITY OF THE BIDDER TO VERIFY THAT THE PROJECT MANUAL IS COMPLETE AS LISTED.



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IFB 1570-82C

DATE

June 7, 1982

INVITATION FOR BIDS
(CONSTRUCTION CONTRACT)

NAME AND LOCATION OF PROJECT

Yellowstone National Park
Canyon Village
Phase II Domestic Water System
Teton County, Wyoming

DEPARTMENT OR AGENCY

U. S. Department of the Interior
National Park Service

BY (Issuing office)

Yellowstone National Park
Yellowstone National Park, Wyoming 82190

Telephone: 307/344-7381 Ext. 2227

Sealed bids in single copy for the work described herein will be received until
2:00 p.m., prevailing time at place of bid opening, July 7, 1982

at Park Headquarters, Mammoth Hot Springs
Yellowstone National Park
Yellowstone National Park, Wyoming

and at that time publicly opened.

Information regarding bidding material, bid guarantee, and bonds

DRAWINGS, PROJECT MANUALS AND BID FORMS: Obtain from Issuing Office on or
after above date of Invitation. No charge will be made.

BIDDING INSTRUCTIONS: Instructions to Bidders (Standard Form 22).

BID SUBMITTAL: Use perforated yellow copies furnished, or facsimile. Follow
directions printed thereon.

BID GUARANTEE: A bid guarantee in the amount of 20 percent of the bid is
required with any bid in excess of \$25,000. Bid Bonds must have accompanying
Power of Attorney.

CONTRACT EXECUTION: Successful Bidder will be required to execute Construction
Contract (Standard Form 23). Furnish bonds on Standard Forms 25 and 25A based
on contract amounts within the following ranges: Less than \$25,000, no bonds
required; \$25,000 to \$1,000,000, 100 percent performance bond, 50 percent
payment bond; \$1,000,000 and over, 100 percent performance bond, 40 percent
payment bond.

TIME FOR COMPLETION: 750 calendar days.

LIQUIDATED DAMAGES: \$250 per calendar day.

This is a 100 percent set-aside for small business concerns.

Description of work

The principal features of the work include a 700,000-gallon-per-day water
treatment plant, distribution system improvements, a raw water reservoir,
and a 750,000-gallon storage tank.

Estimated Price Range: \$2,000,000 to \$3,000,000.

Package No. 141

(OVER)

ATTACHMENT TO INVITATION FOR BIDS

NOTICE OF TOTAL SMALL BUSINESS SET-ASIDE

(a) Restriction. Bids or proposals under this procurement are solicited from small business concerns only and this procurement is to be awarded only to one or more small business concerns. This action is based on a determination by the Contracting Officer, alone or in conjunction with a representative of Small Business Administration, that it is in the interest of maintaining or mobilizing the Nation's full productive capacity, in the interest of war or national defense programs, or in the interest of assuring that a fair proportion of Government procurement is placed with small business concerns. Bids or proposals received from firms which are not small business concerns shall be considered nonresponsive.

(b) Definition. A "small business concern" is a concern including its affiliates, which is independently owned and operated, is not dominant in the field of operation in which it is bidding on Government contracts, and can further qualify under the criteria set forth in regulations of the Small Business Administration (13 CFR 121.3-8). In addition to meeting these criteria, a manufacturer or a regular dealer submitting bids or proposals in his own name must agree to furnish in the performance of the contract end items manufactured or produced in the United States, its possessions, or Puerto Rico, by small business concerns: Provided, That this additional requirement does not apply in connection with construction or service contracts.

INSTRUCTIONS TO BIDDERS

(CONSTRUCTION CONTRACT)

1. **Explanations to Bidders.**—Any explanation desired by a bidder regarding the meaning or interpretation of the invitation for bids, drawings, specifications, etc., must be requested in writing and with sufficient time allowed for a reply to reach bidders before the submission of their bids. Any interpretation made will be in the form of an amendment of the invitation for bids, drawings, specifications, etc., and will be furnished to all prospective bidders. Its receipt by the bidder must be acknowledged in the space provided on the Bid Form (Standard Form 21) or by letter or telegram received before the time set for opening of bids. Oral explanations or instructions given before the award of the contract will not be binding.

2. **Conditions Affecting the Work.**—Bidders should visit the site and take such other steps as may be reasonably necessary to ascertain the nature and location of the work, and the general and local conditions which can affect the work or the cost thereof. Failure to do so will not relieve bidders from responsibility for estimating properly the difficulty or cost of successfully performing the work. The Government will assume no responsibility for any understanding or representations concerning conditions made by any of its officers or agents prior to the execution of the contract, unless included in the invitation for bids, the specifications, or related documents.

3. **Bidder's Qualifications.**—Before a bid is considered for award, the bidder may be requested by the Government to submit a statement regarding his previous experience in performing comparable work, his business and technical organization, financial resources, and plant available to be used in performing the work.

4. **Bid Guarantee.**—Where a bid guarantee is required by the invitation for bids, failure to furnish a bid guarantee in the proper form and amount, by the time set for opening of bids, may be cause for rejection of the bid.

A bid guarantee shall be in the form of a firm commitment, such as a bid bond, postal money order, certified check, cashier's check, irrevocable letter of credit or, in accordance with Treasury Department regulations, certain bonds or notes of the United States. Bid guarantees, other than bid bonds, will be returned (a) to unsuccessful bidders as soon as practicable after the opening of bids, and (b) to the successful bidder upon execution of such further contractual documents and bonds (including any necessary coinsurance or reinsurance agreements) as may be required by the bid as accepted.

If the successful bidder, upon acceptance of his bid by the Government within the period specified therein for acceptance (sixty days if no period is specified) fails to execute such further contractual documents, if any, and give such bond(s) (including any necessary coinsurance or reinsurance agreements) as may be required by the terms of the bid as accepted within the time specified (ten days if no period is specified) after receipt of the forms by him, his contract may be terminated for default. In such event he shall be liable for any cost of procuring the work which exceeds the amount of his bid, and the bid guarantee shall be available toward offsetting such difference.

5. **Preparation of Bids.**—(a) Bids shall be submitted on the forms furnished, or copies thereof, and must be manually signed. If erasures or other changes appear on the forms, each erasure or change must be initialed by the person signing the bid. Unless specifically authorized in the invitation for bids, telegraphic bids will not be considered.

(b) The bid form may provide for submission of a price or prices for one or more items, which may be lump sum bids, alternate prices, scheduled items resulting in a bid on a unit of construction or a combination thereof, etc. Where the bid form explicitly requires that the bidder bid on all items, failure to do so will disqualify the bid. When submission of a price on all items is not required, bidders should insert the words "no bid" in the space provided for any item on which no price is submitted.

(c) Unless called for, alternate bids will not be considered.

(d) Modification of bids already submitted will be considered if received at the office designated in the invitation for bids by the time set for opening of bids. Telegraphic modifications will be considered, but should not reveal the amount of the original or revised bid.

6. **Submission of Bids.**—Bids must be sealed, marked, and addressed as directed in the invitation for bids. Failure to do so may result in a premature opening of, or a failure to open, such bid.

7. **Withdrawal of Bids.**—Bids may be withdrawn by written or telegraphic request received from bidders prior to the time set for opening of bids. (See par. 8 regarding late withdrawals.)

8. Late Bids, Modifications of Bids, or Withdrawal of Bids.—(a) Any bid received at the office designated in the solicitation after the exact time specified for receipt will not be considered unless it is received before award is made and either:

(1) It was sent by registered or certified mail not later than the fifth calendar day prior to the date specified for the receipt of bids (e.g., a bid submitted in response to a solicitation requiring receipt of bids by the 20th of the month must have been mailed by the 15th or earlier); or

(2) It was sent by mail (or telegram if authorized) and it is determined by the Government that the late receipt was due solely to mishandling by the Government after receipt at the Government installation.

(b) Any modification or withdrawal of a bid is subject to the same conditions as in (a), above. A bid may also be withdrawn in person by a bidder or his authorized representative, provided his identity is made known and he signs a receipt for the bid, but only if the withdrawal is made prior to the exact time set for receipt of bids.

(c) The only acceptable evidence to establish:

(1) The date of mailing of a late bid, modification, or withdrawal sent either by registered or certified mail is the U.S. Postal Service postmark on both the envelope or wrapper and on the original receipt from the U.S. Postal Service. If neither postmark shows a legible date, the bid, modification, or withdrawal shall be deemed to have been mailed late. (The term "postmark" means a printed, stamped, or otherwise placed impression (exclusive of a postage meter machine impression) that is readily identifiable without further action as having been supplied and affixed on the date of mailing by employees of the U.S. Postal Service. Therefore, offerors should request the postal clerk to place a hand cancellation bull's-eye

"postmark" on both the receipt and the envelope or wrapper.)

(2) The time of receipt at the Government installation is the time-date stamp of such installation on the bid wrapper or other documentary evidence of receipt maintained by the installation.

(d) Notwithstanding (a) and (b) of this provision, a late modification of an otherwise successful bid which makes its terms more favorable to the Government will be considered at any time it is received and may be accepted.

NOTE: The term "telegram" includes mailgrams.

9. Public Opening of Bids.—Bids will be publicly opened at the time set for opening in the invitation for bids. Their content will be made public for the information of bidders and others interested, who may be present either in person or by representative.

10. Award of Contract.—(a) Award of contract will be made to that responsible bidder whose bid, conforming to the invitation for bids is most advantageous to the Government, price and other factors considered.

(b) The Government may, when in its interest, reject any or all bids or waive any informality in bids received.

(c) The Government may accept any item or combination of items of a bid, unless precluded by the invitation for bids or the bidder includes in his bid a restrictive limitation.

11. Contract and Bonds.—The bidder whose bid is accepted will, within the time established in the bid, enter into a written contract with the Government and, if required, furnish performance and payment bonds on Government standard forms in the amounts indicated in the invitation for bids or the specifications.

Supplement to Clause 11: REQUIREMENTS FOR EXECUTION OF SURETY BONDS: Each surety bond (bid, performance, payment) which purports to have been executed by an agent or attorney-in-fact, for the corporate surety, is required to have submitted with it a power of attorney to the signatory agent or attorney-in-fact, and executed by the corporate surety upon a date reasonably proximate to the date of the bond. Such power of attorney shall in each instance be retained with the bond. (IPR 14-7, 602-50(4))

BID FORM
(Construction Contract)

1. REFERENCE (Project Solicitation Number)
(Include on correspondence)

IFB 1570-82C

2. Read the instructions to Bidders (Standard Form 22).

Submit original and 0 signed copies of this form.

3. DATE OF INVITATION

June 7, 1982

4. NAME AND LOCATION OF PROJECT

Yellowstone National Park
Canyon Village
Phase II Domestic Water System
Teton County, Wyoming

5. BIDDER'S NAME AND ADDRESS (Include ZIP Code) (Type or print)

6. TELEPHONE NO. (Include Area Code)

7. DATE

8. MAIL BID TO:

Superintendent
Yellowstone National Park
Yellowstone National Park, Wyoming 82190

In compliance with the above-dated invitation for bids, the undersigned hereby proposes to perform all work for IFB 1570-82C

in strict accordance with the General Provisions (Standard Form 23-A), Labor Standards Provisions Applicable to Contracts in Excess of \$2,000 (Standard Form 19-A), specifications, schedules, drawings, and conditions, for the following amount(s):
(SEE CONTRACT BID SCHEDULE)

The undersigned agrees that, upon written acceptance of this bid, mailed or otherwise furnished within _____ calendar days* after the date of opening of bids (unless a different period is inserted by the bidder), bidder will, within 15 calendar days after receipt of the prescribed forms (unless a longer period is allowed), execute Standard Form 23, Construction Contract, and give performance and payment bonds, as required**, on Government standard forms with good and sufficient surety. The undersigned further agrees that, when reinsurance agreements are contemplated, all necessary reinsurance agreements will be on Government forms and will be executed and submitted with the bonds. However, when an additional period of 45 days (not to exceed 45 calendar days) is authorized by the procuring activity, reinsurance agreements may be submitted within such period after the execution of the bond.

The undersigned agrees, if awarded the contract, to commence the work within 15 calendar days after the date of receipt of notice to proceed, and to complete the work within specified calendar days after the date of receipt of notice to proceed.

*Bids acceptance period. Bids offering less than 60 days for acceptance by the Government from the date set for opening will be considered nonresponsive and will be rejected.

**Performance and payment bonds shall be furnished when (1) the contract award resulting from this bid exceeds \$25,000, or (2) bonds are specifically required by the Invitation for Bids (Standard Form 20).

RECEIPT OF AMENDMENTS. The undersigned acknowledges receipt of the following amendments of the invitation for bids, drawings, and/or specifications, etc. (Give number and date of each.)

AMENDMENT NO.						
DATE						
AMENDMENT NO.						
DATE						

The representations and certifications on the accompanying STANDARD FORM 19-B are made a part of this bid.

ENCLOSED IS BID GUARANTEE, CONSISTING OF		IN THE AMOUNT OF \$
NAME OF BIDDER (Type or print)		FULL NAME OF ALL PARTNERS (Type or print)
BUSINESS ADDRESS (Type or print) (Include ZIP Code)		
BY (Signature in ink. Type or print name under signature)		
TITLE (Type or print)		

DIRECTIONS FOR SUBMITTING BIDS: Envelopes containing bids, guarantee, etc., must be sealed, marked, and addressed as follows:

MARK ENVELOPE:

Bid for: Phase II Domestic Water System
IFB 1570-82C

Open: 2:00 p.m., prevailing time at place of bid opening, July 7, 1982.

CAUTION—Bids should not be qualified by exceptions to the bidding conditions.

STANDARD FORM 21 BACK (REV. 9-81)

The following certification is to be executed, corporate seal affixed, and returned with any bid proposal submitted:

CERTIFICATE OF AUTHORITY TO SIGN BIDS/PROPOSALS

I, _____, certify that I am
the _____ of the
corporation named as Bidder/Offeror herein; that _____
_____, who signed this bid/proposal on behalf of
the Contractor, was then the _____,
of said Corporation; that said offer was duly signed for and in
behalf of said Corporation by authority of its governing body,
and that the signing of the offer by _____
_____ was within the scope of his Corporate powers.

(Signature) CORPORATE SEAL

CONTRACT BID SCHEDULE

Yellowstone National Park
 IFB 1570-82C
 Phase II Domestic Water System, Canyon Village

Submit bid for all items. In case of error in the extension of prices, unit price governs. In case of error in summation, the total of the corrected bid amounts governs.

ITEM NO. SECTION	ITEM, QUANTITY & UNIT OF MEASURE	UNIT PRICE	AMOUNT OF BID
<u>WATER TREATMENT PLANT (Items 1 - 22)</u>			
<u>1</u> 01150	Water Treatment Plant	Lump Sum = \$	
<u>2</u> 02221	Imported Borrow	500 C.Y. @ \$	= \$
<u>3</u> 02262	Riprap Lined Drain Swale	50 L.F. @ \$	= \$
<u>4</u> 02523	12-inch Corrugated Metal Pipe	47 L.F. @ \$	= \$
<u>5</u> 02523	12-inch Flared End Section with Riprap	2 ea. @ \$	= \$
<u>6</u> 02606	Road Base Course	2,550 S.Y. @ \$	= \$
<u>7</u> 02715	Fence	1,596 L.F. @ \$	= \$
<u>8</u> 02715	Double Gates	2 ea. @ \$	= \$
<u>9</u> 13851	Backwash Ponds' Liners	1,287 S.Y. @ \$	= \$
<u>10</u> 13851	Raw Water Reservoir Liner	3,077 S.Y. @ \$	= \$

ITEM NO. SECTION	ITEM QUANTITY & UNIT OF MEASURE	UNIT PRICE	AMOUNT OF BID
<u>11</u> 15062	4-inch DIP	279 L.F. @ \$	= \$
<u>12</u> 15062	10-inch DIP	191 L.F. @ \$	= \$
<u>13</u> 15063	1-1/2-inch Copper Pipe	290 L.F. @ \$	= \$
<u>14</u> 15074	4-inch DI Drain Pipe	567 L.F. @ \$	= \$
<u>15</u> 15074	10-inch DI Drain Pipe	219 L.F. @ \$	= \$
<u>16</u> 15074	14-inch DI Drain Pipe	422 L.F. @ \$	= \$
<u>17</u> 15074	4-inch Drain Pipe Flap Valve	1 ea. @ \$	= \$
<u>18</u> 15074	10-inch Drain Pipe Flap Valve	1 ea. @ \$	= \$
<u>19</u> 15305	6-inch Gravity Sewer Pipe	729 L.F. @ \$	= \$
<u>20</u> 15334	Sewer Manholes (up to 4 feet deep)	3 ea. @ \$	= \$
<u>21</u> 15334	Extra Depth for Standard Manhole	6 V.F. @ \$	= \$
<u>22</u> 15334	Sewer Manhole Connection	Lump Sum	= \$

750,000 Gallon Storage Tank (Items 23-27)

<u>23</u> 02221	Rock Excavation for Structures	4,000 C.Y. @ \$	= \$
<u>24</u> 15074	4-inch DI Drain Pipe	65 L.F. @ \$	= \$
<u>25</u> 15074	6-inch DI Drain Pipe	443 L.F. @ \$	= \$

ITEM NO. SECTION	ITEM QUANTITY & UNIT OF MEASURE	UNIT PRICE	AMOUNT OF BID
<u>26</u> 15074	6-inch Drain Pipe Flap Valve	2 ea. @ \$	= \$
<u>27</u> 15179	750,000 Gallon Storage Tank	Lump Sum = \$	
<u>Distribution System (Items 28-142)</u>			
<u>28</u> 02221	Imported Borrow	500 C.Y. @ \$	= \$
<u>29</u> 07216	Buried Pipeline Insulation	1,303 L.F. @ \$	= \$
<u>30</u> 15062	24-inch DIP	644 L.F. @ \$	= \$
<u>31</u> 15062	12-inch DIP	1,200 L.F. @ \$	= \$
<u>32</u> 15062	10-inch DIP	1,694 L.F. @ \$	= \$
<u>33</u> 15062	10-inch DIP in Pavement	113 L.F. @ \$	= \$
<u>34</u> 15062	8-inch DIP	2,230 L.F. @ \$	= \$
<u>35</u> 15062	8-inch DIP in Pavement	909 L.F. @ \$	= \$
<u>36</u> 15062	6-inch DIP	871 L.F. @ \$	= \$
<u>37</u> 15062	6-inch DIP in Pavement	68 L.F. @ \$	= \$
<u>38</u> 15062	4-inch DIP	542 L.F. @ \$	= \$
<u>39</u> 15062	4-inch DIP in Pavement	200 L.F. @ \$	= \$

ITEM NO. SECTION	ITEM QUANTITY & UNIT OF MEASURE	UNIT PRICE	AMOUNT OF BID
40 15063	2-inch Copper Pipe 1,787 L.F. @	\$ _____	= \$ _____
41 15063	1-1/2-inch Copper Pipe 210 L.F. @	\$ _____	= \$ _____
42 15053	1-inch Copper Pipe 70 L.F. @	\$ _____	= \$ _____
43 15063	3/4-inch Copper Pipe 135 L.F. @	\$ _____	= \$ _____
44 15074	4-inch DI Drain Pipe 1,353 L.F. @	\$ _____	= \$ _____
45 15074	4-inch Drain Pipe Flap Valve 4 ea. @	\$ _____	= \$ _____
46 15074	6-inch DI Drain Pipe 150 L.F. @	\$ _____	= \$ _____
47 15074	6-inch Drain Pipe Flap Valved Hydrant 1 ea. @	\$ _____	= \$ _____
48 15101	10-inch Gate Valve with Valve Box 4 ea. @	\$ _____	= \$ _____
49 15101	8-inch Gate Valve with Valve Box 13 ea. @	\$ _____	= \$ _____
50 15101	6-inch Gate Valve with Valve box 15 ea. @	\$ _____	= \$ _____
51 15101	4-inch Gate Valve with Valve box 7 ea. @	\$ _____	= \$ _____
52 15101	6-inch Post Indicator Valves 5 ea. @	\$ _____	= \$ _____
53 15101	4-inch Post Indicator Valves 1 ea. @	\$ _____	= \$ _____
54 15109	2-inch Type 1 Service Connection 16 ea. @	\$ _____	= \$ _____
55 15109	1-1/2-inch Type 1 Service Connection 1 ea. @	\$ _____	= \$ _____

ITEM NO. SECTION	ITEM QUANTITY & UNIT OF MEASURE	UNIT PRICE	AMOUNT OF BID
<u>56</u> 15109	1-inch Type 1 Service Connection	1 ea. @ \$ _____	= \$ _____
<u>57</u> 15109	3/4-inch Type 1 Service Connection	3 ea. @ \$ _____	= \$ _____
<u>58</u> 15109	2-inch Type 2 Pumpout Drain	11 ea. @ \$ _____	= \$ _____
<u>59</u> 15109	1-1/2-inch Yard Hydrant	3 ea. @ \$ _____	= \$ _____
<u>60</u> 15110	CES 1	Lump Sum	= \$ _____
<u>61</u> 15110	CES 2	Lump Sum	= \$ _____
<u>62</u> 15110	CES 3	Lump Sum	= \$ _____
<u>63</u> 15110	CES 4	Lump Sum	= \$ _____
<u>64</u> 15110	CES 5	Lump Sum	= \$ _____
<u>65</u> 15110	CES 6	Lump Sum	= \$ _____
<u>66</u> 15110	CES 7	Lump Sum	= \$ _____
<u>67</u> 15110	CES 8	Lump Sum	= \$ _____
<u>68</u> 15110	CES 9	Lump Sum	= \$ _____
<u>69</u> 15110	CES 10	Lump Sum	= \$ _____
<u>70</u> 15110	CES 11	Lump Sum	= \$ _____
<u>71</u> 15110	CES 12	Lump Sum	= \$ _____

ITEM NO. SECTION	ITEM QUANTITY & UNIT OF MEASURE	UNIT PRICE	AMOUNT OF BID
<u>72</u> 15110	CES 13	Lump Sum	= \$ _____
<u>73</u> 15110	CES 14	Lump Sum	= \$ _____
<u>74</u> 15110	CES 15	Lump Sum	= \$ _____
<u>75</u> 15110	CES 16	Lump Sum	= \$ _____
<u>76</u> 15110	CES 17	Lump Sum	= \$ _____
<u>77</u> 15110	CES 18	Lump Sum	= \$ _____
<u>78</u> 15110	CES 19	Lump Sum	= \$ _____
<u>79</u> 15110	CES 20	Lump Sum	= \$ _____
<u>80</u> 15110	CES 21	Lump Sum	= \$ _____
<u>81</u> 15110	CES 22	Lump Sum	= \$ _____
<u>82</u> 15110	CES 23	Lump Sum	= \$ _____
<u>83</u> 15110	CES 24	Lump Sum	= \$ _____
<u>84</u> 15110	CES 25	Lump Sum	= \$ _____
<u>85</u> 15110	CES 26	Lump Sum	= \$ _____
<u>86</u> 15110	CES 27	Lump Sum	= \$ _____
<u>87</u> 15110	CES 28	Lump Sum	= \$ _____

ITEM NO. SECTION	ITEM QUANTITY & UNIT OF MEASURE	UNIT PRICE	AMOUNT OF BID
<u>88</u> 15110	CES 29	Lump Sum = \$	
<u>89</u> 15110	CES 30	Lump Sum = \$	
<u>90</u> 15110	CES 31	Lump Sum = \$	
<u>91</u> 15110	CES 32	Lump Sum = \$	
<u>92</u> 15110	CES 33	Lump Sum = \$	
<u>93</u> 15110	CES 34	Lump Sum = \$	
<u>94</u> 15110	CES 35	Lump Sum = \$	
<u>95</u> 15110	CES 36	Lump Sum = \$	
<u>96</u> 15110	CES 37	Lump Sum = \$	
<u>97</u> 15110	CES 38	Lump Sum = \$	
<u>98</u> 15110	CES 39	Lump Sum = \$	
<u>99</u> 15110	CES 40	Lump Sum = \$	
<u>100</u> 15110	CES 41	Lump Sum = \$	
<u>101</u> 15110	CES 42	Lump Sum = \$	
<u>102</u> 15110	CES 43	Lump Sum = \$	
<u>103</u> 15110	CES 44	Lump Sum = \$	

ITEM NO. SECTION	ITEM QUANTITY & UNIT OF MEASURE	UNIT PRICE	AMOUNT OF BID
<u>104</u> 15130	Pressure Reducing Valve Vault	Lump Sum = \$	_____
<u>105</u> 15170	Meter 1	Lump Sum = \$	_____
<u>106</u> 15170	Meter 2	Lump Sum = \$	_____
<u>107</u> 15170	Meter 3	Lump Sum = \$	_____
<u>108</u> 15170	Meter 4	Lump Sum = \$	_____
<u>109</u> 15170	Meter 5	Lump Sum = \$	_____
<u>110</u> 15170	Meter 6	Lump Sum = \$	_____
<u>111</u> 15170	Meter 7	Lump Sum = \$	_____
<u>112</u> 15170	Meter 8	Lump Sum = \$	_____
<u>113</u> 15170	Meter 9	Lump Sum = \$	_____
<u>114</u> 15170	Meter 10	Lump Sum = \$	_____
<u>115</u> 15170	Meter 11	Lump Sum = \$	_____
<u>116</u> 15170	Meter 12	Lump Sum = \$	_____
<u>117</u> 15170	Meter 13	Lump Sum = \$	_____
<u>118</u> 15170	Meter 14	Lump Sum = \$	_____
<u>119</u> 15170	Meter 15	Lump Sum = \$	_____

ITEM NO. SECTION	ITEM QUANTITY & UNIT OF MEASURE	UNIT PRICE	AMOUNT OF BID
<u>120</u> 15170	Meter 16	Lump Sum = \$	
<u>121</u> 15170	Meter 17	Lump Sum = \$	
<u>122</u> 15170	Meter 18	Lump Sum = \$	
<u>123</u> 15170	Meter 19	Lump Sum = \$	
<u>124</u> 15170	Meter 20	Lump Sum = \$	
<u>125</u> 15170	Meter 21	Lump Sum = \$	
<u>126</u> 15170	Meter 22	Lump Sum = \$	
<u>127</u> 15170	Meter 23	Lump Sum = \$	
<u>128</u> 15170	Meter 24	Lump Sum = \$	
<u>129</u> 15170	Meter 25	Lump Sum = \$	
<u>130</u> 15171	Refurbish Motor Lodge Meter Vaults	Lump Sum = \$	
<u>131</u> 15302	8-inch Sewer Crossing Pipe	87 L.F. @ \$ = \$	
<u>132</u> 15302	8-inch Sewer Pipe Coupling	6 ea. @ \$ = \$	
<u>133</u> 15302	6-inch Sewer Crossing Pipe	105 L.F. @ \$ = \$	
<u>134</u> 15302	6-inch Sewer Pipe Coupling	10 ea. @ \$ = \$	
<u>135</u> 15302	4-inch Sewer Crossing Pipe	25 L.F. @ \$ = \$	

ITEM NO. SECTION	ITEM QUANTITY & UNIT OF MEASURE	UNIT PRICE	AMOUNT OF BID
<u>136</u> 15302	4-inch Sewer Pipe Coupling	2 ea. @ \$	= \$
<u>137</u> 15333	Potable Water Line Drain Manhole	1 ea. @ \$	= \$
<u>138</u> 15502	Fire Hydrants	10 ea. @ \$	= \$
<u>139</u> 15505	Fire Service Vault No. 1	Lump Sum = \$	
<u>140</u> 15505	Fire Service Vault No. 2	Lump Sum = \$	
<u>141</u> 15505	Fire Service Vault No. 3	Lump Sum = \$	
<u>142</u> 15505	Registration Building Fire Service Connection	Lump Sum = \$	

BID SUMMARY

TOTAL BID (Items 1 through 142)----- \$

Above quantities, except lump sum, are estimated and will be used to solicit bids, but payment will be made only for actual quantities of work completed. Award will be made to one bidder in accordance with Clause 10 of the Instructions to Bidders.

END

ATTACHMENT TO BID FORM, SF-21
INFORMATION REGARDING BUY AMERICAN ACT

- (a) The Buy American Act (41 U.S.C. 10a-10d) generally requires that only domestic construction material be used in the performance of this contract. (See the clause entitled "Buy American" in Standard Form 23A, General Provisions, Construction Contracts.) This requirement does not apply to the following construction material or components:

Acetylene black
 Asbestos, amosite
 Bananas
 Beef extract
 Bismuth
 Books, pamphlets, newspapers, magazines, periodicals, printed briefs, and films which are not printed in the United States and for which domestic editions are not available
 Brazil nuts, unroasted
 Cadmium, ores and flue dust
 Calcium cyanamide
 Capers
 Cashew nuts
 Chicla
 Chrome ore or chromite
 Cinchona bark
 Cobalt, in cathodes, rondelles, or other primary forms
 Cocoa beans
 Coconut and coconut meat, unsweetened, in shredded, dessiccated, or similarly prepared form
 Coffee, raw or green bean
 Cork, wood or bark and waste
 Diamonds, industrial, stones
 Emetine, bulk
 Ergot, crude
 Fair linen, altar
 Fibers of the following types: Abaca, agave, coir, jute and palmyra
 Goat and kid skins
 Graphite, natural
 Hog bristles for brushes
 Hyoscine, bulk
 Ipecac, root

Menthol, natural bulk
 Mica
 Nickel primary, in ingots, pigs, shot, cathodes, or similar forms, nickel oxide and nickel salts
 Nitroguanidine (also known as picrite)
 Olive oil
 Olives (green), pitted or stuffed or bulk
 Opium, crude
 Petroleum, crude oil; unfinished oils and finished products
 Platinum and platinum group metals refined, as sponge, powder, ingots, or cast bars
 Pyrethrum flowers
 Quartz crystals
 Quebracho
 Quinidine
 Radium salts
 Rubber, crude and latex
 Rutile
 Sperm oil
 Spices and herbs in bulk
 Sugars, raw
 Swords
 Taic, block steatite
 Tapioca flour and cassava
 Tartar, crude; tartaric acid and cream of tartar in bulk
 Tea in bulk
 Tin in bars, blocks and pigs
 Vanilla beans
 Venom, cobra
 Wax, carnauba
 Woods of the following species: Angelique, balsa, ekki, greenheart, lignum vitae, mahogany, and teak

- (b) (1) Furthermore, bids or proposals offering use of additional non-domestic construction material may be acceptable for award if the Government determines that use of comparable domestic construction material is impracticable or would unreasonably increase the cost of that domestic construction material (in sufficient and reasonably available commercial quantities and of a satisfactory quality) is unavailable. Reliable evidence shall be furnished justifying such use of additional non-domestic construction material.
- (2) Where it is alleged that use of domestic construction material would unreasonably increase the cost:
- (i) Data shall be included by the bidder, based on a reasonable canvass of suppliers, demonstrating that the cost of each such domestic construction material would exceed by more than 6 percent the cost of comparable non-domestic construction material. (All costs of delivery to the construction site shall be included, as well as any applicable duty.)

**ADDITIONAL NONDOMESTIC CONSTRUCTION
 MATERIALS COST COMPARISON**

Identification of material	Quantity	Cost (dollars) ¹
Item 1:		
Nondomestic materials _____		
Comparable domestic material _____		
Item 2:		
Nondomestic material _____		
Comparable domestic material _____		
Totals: _____		

¹ Delivered to construction site.

- (ii) For evaluation purposes, 6 percent of the cost of all additional non-domestic construction material, which qualifies under paragraph (i) above will be added to the bid or proposal.
- (3) When offering additional non-domestic construction material, bids or proposals may also offer, at stated prices, any available comparable domestic construction material, so as to avoid the possibility that failure of a non-domestic construction material to be acceptable under (1) above, will cause rejection of the entire bid. However, unless the bidder/offeror specifically states that alternate bid or proposal prices are being submitted for specific items of the bid schedule (based on prices listed for comparable domestic materials), the bid or proposal will be evaluated only on the basis of nondomestic construction materials.

REPRESENTATIONS AND CERTIFICATIONS**(Construction and Architect-Engineer Contract)****(For use with Standard Forms 19, 21 and 252)**

REFERENCE (Enter same No.(s) as on SF 19, 21 and 252)

IFB 1570-82C

NAME AND ADDRESS OF BIDDER (No., Street, City, State, and ZIP Code)

DATE OF BID

In negotiated procurements, "bid" and "bidder" shall be construed to mean "offer" and "offeror."

The bidder makes the following representations and certifications as a part of the bid identified above. (Check appropriate boxes.)

1. SMALL BUSINESS

He ☐ is, ☐ is not, a small business concern. (A small business concern for the purpose of Government procurement is a concern, including its affiliates, which is independently owned and operated, is not dominant in the field of operations in which it is bidding on Government contracts, and can further qualify under the criteria concerning number of employees, average annual receipts, or other criteria as prescribed by the Small Business Administration. For additional information see governing regulations of the Small Business Administration (13 CFR Part 121)).

2. SMALL DISADVANTAGED BUSINESS CONCERN

He ☐ is ☐ is not a small business concern owned and controlled by socially and economically disadvantaged individuals as defined in the clause entitled "Utilization of Small Business Concerns and Small Business Concerns Owned and Controlled by Socially and Economically Disadvantaged Individuals" of the General Provisions.

3. CONTINGENT FEE

(a) He ☐ has, ☐ has not, employed or retained any company or person (other than a full-time bona fide employee working solely for the bidder) to solicit or secure this contract, and (b) he ☐ has, ☐ has not, paid or agreed to pay any company or person (other than a full-time bona fide employee working solely for the bidder) any fee, commission, percentage or brokerage fee, contingent upon or resulting from the award of this contract; and agrees to furnish information relating to (a) and (b) above as requested by the Contracting Officer. (For interpretation of the representation, including the term "bona fide employee," see Code of Federal Regulations, Title 41, Subpart 1-1.5.)

4. TYPE OF ORGANIZATION

He operates as an ☐ individual, ☐ partnership, ☐ joint venture, ☐ corporation, incorporated in State of

5. INDEPENDENT PRICE DETERMINATION

(a) By submission of this bid, each bidder certifies, and in the case of a joint bid each party thereto certifies as to his own organization, that in connection with this procurement:

(1) The prices in this bid have been arrived at independently, without consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor;

(2) Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, in the case of a bid, or prior to award, in the case of a proposal, directly or indirectly to any other bidder or to any competitor; and

(3) No attempt has been made or will be made by the bidder to induce any other person or firm to submit or not to submit a bid for the purpose of restricting competition.

(b) Each person signing this bid certifies that:

(1) He is the person in the bidder's organization responsible within that organization for the decision as to the prices being bid herein and that he has not participated, and will not participate, in any action contrary to (a)(1) through (a)(3) above; or

(2) (i) He is not the person in the bidder's organization responsible within that organization for the decision as to the prices being bid herein but that he has been authorized in writing to act as agent for the persons responsible for such decision in certifying that such persons have not participated, and will not participate, in any action contrary to (a)(1) through (a)(3) above, and as their agent does hereby so certify; and (ii) he has not participated, and will not participate, in any action contrary to (a)(1) through (a)(3) above.

(c) This certification is not applicable to a foreign bidder submitting a bid for a contract which requires performance or delivery outside the United States, its possessions, and Puerto Rico.

(d) A bid will not be considered for award where (a)(1), (a)(3), or (b) above, has been deleted or modified. Where (a)(2) above, has been deleted or modified, the bid will not be considered for award unless the bidder furnishes with the bid a signed statement which sets forth in detail the circumstances of the disclosure and the head of the agency, or his designee, determines that such disclosure was not made for the purpose of restricting competition.

NOTE:—Bids must set forth full, accurate, and complete information as required by this invitation for bids (including attachments). The penalty for making false statements in bids is prescribed in 18 U.S.C. 1001.

THE FOLLOWING NEED BE CHECKED ONLY IF BID EXCEEDS \$10,000 IN AMOUNT.

6. EQUAL OPPORTUNITY

He ☐ has, ☐ has not, participated in a previous contract or subcontract subject to the Equal Opportunity Clause herein, the clause originally contained in Section 301 of Executive Order No. 10925, or the clause contained in Section 201 of Executive Order No. 11114; he ☐ has, ☐ has not, filed all required compliance reports; and representations indicating submission of required compliance reports, signed by proposed subcontractors, will be obtained prior to subcontract awards.

(The above representations need not be submitted in connection with contracts or subcontracts which are exempt from the equal opportunity clause.)

7. PARENT COMPANY AND EMPLOYER IDENTIFICATION NUMBER

Each bidder shall furnish the following information by filling in the appropriate blocks:

(a) Is the bidder owned or controlled by a parent company as described below? ☐ Yes ☐ No. (For the purpose of this bid, a parent company is defined as one which either owns or controls the activities and basic business policies of the bidder. To own another company means the parent company must own at least a majority (more than 50 percent) of the voting rights in that company. To control another company, such ownership is not required; if another company is able to formulate, determine, or veto basic business policy decisions of the bidder, such other company is considered the parent company of the bidder. This control may be exercised through the use of dominant minority voting rights, use of proxy voting, contractual arrangements, or otherwise.)

(b) If the answer to (a) above is "Yes," bidder shall insert in the space below the name and main office address of the parent company.

NAME OF PARENT COMPANY

MAIN OFFICE ADDRESS (No., Street, City, State, and ZIP Code)

(c) Bidder shall insert in the applicable space below, if he has no parent company, his own Employer's Identification Number (E.I. No.) (Federal Social Security Number used on Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941), or, if he has a parent company, the E.I. No. of his parent company.

EMPLOYER
IDENTIFICATION NUMBER OF



PARENT COMPANY

BIDDER

8. CERTIFICATION OF NONSEGREGATED FACILITIES

(Applicable to (1) contracts, (2) subcontracts, and (3) agreements with applicants who are themselves performing federally assisted construction contracts, exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause.)

By the submission of this bid, the bidder, offeror, applicant, or subcontractor certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. He certifies further that he will not maintain or provide for his employees any segregated facilities at any of his establishments, and that he will not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The bidder, offeror, applicant, or subcontractor agrees that a breach of this certification is a violation of the Equal Opportunity clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin, because of habit, local custom, or otherwise. He further agrees that (except where he has obtained identical certifications from proposed subcontractors for specific time periods) he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause; that he will retain such certifications in his files; and that he will forward the following notice to such proposed subcontractors (except where the proposed subcontractors have submitted identical certifications for specific time periods):

NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENT FOR CERTIFICATIONS OF NONSEGREGATED FACILITIES

A Certification of Nonsegregated Facilities must be submitted prior to the award of a subcontract exceeding \$10,000 which is not exempt from the provisions of the Equal Opportunity clause. The certification may be submitted either for each subcontract or for all subcontracts during a period (i.e., quarterly, semiannually, or annually).

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

9. CLEAN AIR AND WATER

(Applicable if the bid or offer exceeds \$100,000, or the contracting officer has determined that orders under an indefinite quantity contract in any year will exceed \$100,000, or a facility to be used has been the subject of a conviction under the Clean Air Act (42 U.S.C. 1857c-8(c)(1)) or the Federal Water Pollution Control Act (33 U.S.C. 1319(c)) and is listed by EPA, or is not otherwise exempt.)

The bidder or offeror certifies as follows:

(a) Any facility to be utilized in the performance of this proposed contract has ☐, has not ☐, been listed on the Environmental Protection Agency List of Violating Facilities.

(b) He will promptly notify the contracting officer, prior to award, of the receipt of any communication from the Director, Office of Federal Activities, Environmental Protection Agency, indicating that any facility which he proposes to use for the performance of the contract is under consideration to be listed on the EPA List of Violating Facilities.

(c) He will include substantially this certification, including this paragraph (c), in every nonexempt subcontract.

10. WOMAN-OWNED BUSINESS

Concern is ☐ is not ☐ a woman-owned business.

A woman-owned business is a business which is at least 51 percent owned, controlled, and operated by a woman or women. Controlled is defined as exercising the power to make policy decisions. Operated is defined as actively involved in the day-to-day management.

For the purpose of this definition, businesses which are publicly owned, joint stock associations, and business trusts are exempted. Exempted business may voluntarily represent that they are, or are not, woman-owned if this information is available.

11. PERCENT OF FOREIGN CONTENT

The offeror/contractor will represent (as an estimate), immediately after the award of a contract, the percent of the foreign content of the item or service being procured expressed as a percent of the contract award price (accuracy within plus or minus 5 percent is acceptable).

12. After award, if contract exceeds 10,000, Contractor will be requested to identify its Principal Place of Performance and furnish its DUNS Contractor Establishment Number if one has been assigned.

STANDARD FORM 24

JUNE 1964 EDITION
GENERAL SERVICES ADMINISTRATION
FED. PROC. REG. (41 CFR) 1-16.801

BID BOND

(See Instructions on reverse)

24-103

DATE BOND EXECUTED (Must not be later
than bid opening date)

PRINCIPAL (Legal name and business address)

TYPE OF ORGANIZATION ("X" one)

☐

INDIVIDUAL

☐

PARTNERSHIP

☐JOINT
VENTURE☐

CORPORATION

STATE OF INCORPORATION

SURETY(IES) (Name and business address)

PENAL SUM OF BOND

BID IDENTIFICATION

PERCENT
OF BID
PRICE

AMOUNT NOT TO EXCEED

BID DATE

INVITATION NO

MILLION(S)

THOUSAND(S)

HUNDRED(S)

CENTS

FOR (Construction,
Supplies or Services)

KNOW ALL MEN BY THESE PRESENTS, That we, the Principal and Surety(ies) hereto, are firmly bound to the United States of America (hereinafter called the Government) in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally: *Provided*, That, where the Sureties are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" as well as "severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal has submitted the bid identified above.

NOW, THEREFORE, if the Principal, upon acceptance by the Government of his bid identified above, within the period specified therein for acceptance (sixty (60) days if no period is specified), shall execute such further contractual documents, if any, and give such bond(s) as may be required by the terms of the bid as accepted within the time specified (ten (10) days if no period is specified) after receipt of the forms by him, or in the event of failure so to execute such further contractual documents and give such bonds, if the Principal shall pay the Government for any cost of procuring the work which exceeds the amount of his bid, then the above obligation shall be void and of no effect.

Each Surety executing this instrument hereby agrees that its obligation shall not be impaired by any extension(s) of the time for acceptance of the bid that the Principal may grant to the Government, notice of which extension(s) to the Surety(ies) being hereby waived; provided that such waiver of notice shall apply only with respect to extensions aggregating not more than sixty (60) calendar days in addition to the period originally allowed for acceptance of the bid.

IN WITNESS WHEREOF, the Principal and Surety(ies) have executed this bid bond and have affixed their seals on the date set forth above.

PRINCIPAL

Signature(s)	1.	2.	Corporate Seal
	(Seal)	(Seal)	
Name(s) & Title(s) (Typed)	1.	2.	

INDIVIDUAL SURETIES

Signature(s)	1.	2.
	(Seal)	(Seal)
Name(s) (Typed)	1.	2.

CORPORATE SURETY(IES)

SURETY A	Name & Address		STATE OF INC.	LIABILITY LIMIT	Corporate Seal
	Signature(s)	1.	2.		
	Name(s) & Title(s) (Typed)	1.	2.		

CORPORATE SURETY(IES) (Continued)						
SURETY B	Name & Address			STATE OF INC.	LIABILITY LIMIT	Corporate Seal
	Signature(s)	1.	2.			
	Name(s) & Title(s) (Typed)	1.	2.			
SURETY C	Name & Address			STATE OF INC.	LIABILITY LIMIT	Corporate Seal
	Signature(s)	1.	2.			
	Name(s) & Title(s) (Typed)	1.	2.			
SURETY D	Name & Address			STATE OF INC.	LIABILITY LIMIT	Corporate Seal
	Signature(s)	1.	2.			
	Name(s) & Title(s) (Typed)	1.	2.			
SURETY E	Name & Address			STATE OF INC.	LIABILITY LIMIT	Corporate Seal
	Signature(s)	1.	2.			
	Name(s) & Title(s) (Typed)	1.	2.			
SURETY F	Name & Address			STATE OF INC.	LIABILITY LIMIT	Corporate Seal
	Signature(s)	1.	2.			
	Name(s) & Title(s) (Typed)	1.	2.			
SURETY G	Name & Address			STATE OF INC.	LIABILITY LIMIT	Corporate Seal
	Signature(s)	1.	2.			
	Name(s) & Title(s) (Typed)	1.	2.			

INSTRUCTIONS

1. This form is authorized for use whenever a bid guaranty is required in connection with construction work or the furnishing of supplies or services. There shall be no deviation from this form without approval by the Administrator of General Services.

2. The full legal name and business address of the Principal shall be inserted in the space designated "Principal" on the face of this form. The bond shall be signed by an authorized person. Where such person is signing in a representative capacity (e.g., an attorney-in-fact), but is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved, evidence of his authority must be furnished.

3. The penal sum of the bond may be expressed as a percentage of the bid price if desired. In such cases, a maximum dollar limitation may be stipulated (e.g., 20% of the bid price but the amount not to exceed _____ dollars).

4. (a) Corporations executing the bond as sureties must be among those appearing on the Treasury Department's list of approved sureties and must be acting within

the limitations set forth therein. Where more than a single corporate surety is involved, their names and addresses (city and State) shall be inserted in the spaces (Surety A, Surety B, etc.) headed "CORPORATE SURETY(IES)", and in the space designated "SURETY(IES)" on the face of this form only the letter identification of the Sureties shall be inserted.

(b) Where individual sureties execute the bond, they shall be two or more responsible persons. A completed Affidavit of Individual Surety (Standard Form 28), for each individual surety, shall accompany the bond. Such sureties may be required to furnish additional substantiating information concerning their assets and financial capability as the Government may require.

5. Corporations executing the bond shall affix their corporate seals. Individuals shall execute the bond opposite the word "Seal"; and, if executed in Maine or New Hampshire, shall also affix an adhesive seal.

6. The name of each person signing this bid bond should be typed in the space provided.

BID FORM **(Construction Contract)**

1. REFERENCE (Project/Solicitation Number)
(Include on correspondence)

IFB 1570-82C

2. Read the Instructions to Bidders (Standard Form 22).

Submit original and 0 signed copies of this form.

3. DATE OF INVITATION

June 7, 1982

4. NAME AND LOCATION OF PROJECT

Yellowstone National Park
Canyon Village
Phase II Domestic Water System
Teton County, Wyoming

5. BIDDER'S NAME AND ADDRESS (Include ZIP Code) (Type or print)

6. TELEPHONE NO. (Include Area Code)

7. DATE

8. MAIL BID TO:

Superintendent
Yellowstone National Park
Yellowstone National Park, Wyoming 82190

In compliance with the above-dated invitation for bids, the undersigned hereby proposes to perform all work for IFB 1570-82C

In strict accordance with the General Provisions (Standard Form 23-A), Labor Standards Provisions Applicable to Contracts in Excess of \$2,000 (Standard Form 19-A), specifications, schedules, drawings, and conditions, for the following amount(s):
(SEE CONTRACT BID SCHEDULE)

The undersigned agrees that, upon written acceptance of this bid, mailed or otherwise furnished within _____ calendar days* after the date of opening of bids (unless a different period is inserted by the bidder), bidder will, within 15 calendar days after receipt of the prescribed forms (unless a longer period is allowed), execute Standard Form 23, Construction Contract, and give performance and payment bonds, as required**, on Government standard forms with good and sufficient surety. The undersigned further agrees that, when reinsurance agreements are contemplated, all necessary reinsurance agreements will be on Government forms and will be executed and submitted with the bonds. However, when an additional period of 45 days (not to exceed 45 calendar days) is authorized by the procuring activity, reinsurance agreements may be submitted within such period after the execution of the bond.

The undersigned agrees, if awarded the contract, to commence the work within 15 calendar days after the date of receipt of notice to proceed, and to complete the work within specified calendar days after the date of receipt of notice to proceed.

*Bids acceptance period. Bids offering less than 60 days for acceptance by the Government from the date set for opening will be considered nonresponsive and will be rejected.

**Performance and payment bonds shall be furnished when (1) the contract award resulting from this bid exceeds \$25,000, or (2) bonds are specifically required by the Invitation for Bids (Standard Form 20).

RECEIPT OF AMENDMENTS. *The undersigned acknowledges receipt of the following amendments of the invitation for bids, drawings, and/or specifications, etc. (Give number and date of each.)*

AMENDMENT NO.						
DATE						
AMENDMENT NO.						
DATE						

The representations and certifications on the accompanying STANDARD FORM 19-B are made a part of this bid.

ENCLOSED IS BID GUARANTEE, CONSISTING OF		IN THE AMOUNT OF \$
NAME OF BIDDER (Type or print)		FULL NAME OF ALL PARTNERS (Type or print)
BUSINESS ADDRESS (Type or print) (Include ZIP Code)		
BY (Signature in ink. Type or print name under signature)		
TITLE (Type or print)		

DIRECTIONS FOR SUBMITTING BIDS: *Envelopes containing bids, guarantee, etc., must be sealed, marked, and addressed as follows:*

MARK ENVELOPE:

Bid for: Phase II Domestic Water System
IFB 1570-82C

Open: 2:00 p.m., prevailing time at place of bid opening, July 7, 1982.

CAUTION—*Bids should not be qualified by exceptions to the bidding conditions.*

STANDARD FORM 21 BACK (REV. 9-81)

The following certification is to be executed, corporate seal affixed, and returned with any bid proposal submitted:

CERTIFICATE OF AUTHORITY TO SIGN BIDS/PROPOSALS

I, _____, certify that I am
the _____ of the
corporation named as Bidder/Offeror herein; that _____
_____, who signed this bid/proposal on behalf of
the Contractor, was then the _____,
of said Corporation; that said offer was duly signed for and in
behalf of said Corporation by authority of its governing body,
and that the signing of the offer by _____
_____ was within the scope of his Corporate powers.

(Signature) CORPORATE SEAL

CONTRACT BID SCHEDULE

Yellowstone National Park
IFB 1570-82C
Phase II Domestic Water System, Canyon Village

Submit bid for all items. In case of error in the extension of prices, unit price governs. In case of error in summation, the total of the corrected bid amounts governs.

<u>ITEM NO.</u> <u>SECTION</u>	<u>ITEM, QUANTITY & UNIT OF MEASURE</u>	<u>UNIT PRICE</u>	<u>AMOUNT OF BID</u>
<u>WATER TREATMENT PLANT (Items 1 - 22)</u>			
<u>1</u> 01150	Water Treatment Plant	Lump Sum = \$	
<u>2</u> 02221	Imported Borrow	500 C.Y. @ \$	= \$
<u>3</u> 02262	Riprap Lined Drain Swale	50 L.F. @ \$	= \$
<u>4</u> 02523	12-inch Corrugated Metal Pipe	47 L.F. @ \$	= \$
<u>5</u> 02523	12-inch Flared End Section with Riprap	2 ea. @ \$	= \$
<u>6</u> 02606	Road Base Course	2,550 S.Y. @ \$	= \$
<u>7</u> 02715	Fence	1,596 L.F. @ \$	= \$
<u>8</u> 02715	Double Gates	2 ea. @ \$	= \$
<u>9</u> 13851	Backwash Ponds' Liners	1,287 S.Y. @ \$	= \$
<u>10</u> 13851	Raw Water Reservoir Liner	3,077 S.Y. @ \$	= \$

ITEM NO. SECTION	ITEM QUANTITY & UNIT OF MEASURE	UNIT PRICE	AMOUNT OF BID
<u>11</u> 15062	4-inch DIP 279 L.F. @	\$ _____	= \$ _____
<u>12</u> 15062	10-inch DIP 191 L.F. @	\$ _____	= \$ _____
<u>13</u> 15063	1-1/2-inch Copper Pipe 290 L.F. @	\$ _____	= \$ _____
<u>14</u> 15074	4-inch DI Drain Pipe 567 L.F. @	\$ _____	= \$ _____
<u>15</u> 15074	10-inch DI Drain Pipe 219 L.F. @	\$ _____	= \$ _____
<u>16</u> 15074	14-inch DI Drain Pipe 422 L.F. @	\$ _____	= \$ _____
<u>17</u> 15074	4-inch Drain Pipe Flap Valve 1 ea. @	\$ _____	= \$ _____
<u>18</u> 15074	10-inch Drain Pipe Flap Valve 1 ea. @	\$ _____	= \$ _____
<u>19</u> 15305	6-inch Gravity Sewer Pipe 729 L.F. @	\$ _____	= \$ _____
<u>20</u> 15334	Sewer Manholes (up to 4 feet deep) 3 ea. @	\$ _____	= \$ _____
<u>21</u> 15334	Extra Depth for Standard Manhole 6 V.F. @	\$ _____	= \$ _____
<u>22</u> 15334	Sewer Manhole Connection Lump Sum	= \$ _____	
<u>750,000 Gallon Storage Tank (Items 23-27)</u>			
<u>23</u> 02221	Rock Excavation for Structures 4,000 C.Y. @	\$ _____	= \$ _____
<u>24</u> 15074	4-inch DI Drain Pipe 65 L.F. @	\$ _____	= \$ _____
<u>25</u> 15074	6-inch DI Drain Pipe 443 L.F. @	\$ _____	= \$ _____

ITEM NO. SECTION	ITEM QUANTITY & UNIT OF MEASURE	UNIT PRICE	AMOUNT OF BID
<u>26</u> 15074	6-inch Drain Pipe Flap Valve	2 ea. @ \$	= \$
<u>27</u> 15179	750,000 Gallon Storage Tank	Lump Sum = \$	
<u>Distribution System (Items 28-142)</u>			
<u>28</u> 02221	Imported Borrow	500 C.Y. @ \$	= \$
<u>29</u> 07216	Buried Pipeline Insulation	1,303 L.F. @ \$	= \$
<u>30</u> 15062	24-inch DIP	644 L.F. @ \$	= \$
<u>31</u> 15062	12-inch DIP	1,200 L.F. @ \$	= \$
<u>32</u> 15062	10-inch DIP	1,694 L.F. @ \$	= \$
<u>33</u> 15062	10-inch DIP in Pavement	113 L.F. @ \$	= \$
<u>34</u> 15062	8-inch DIP	2,230 L.F. @ \$	= \$
<u>35</u> 15062	8-inch DIP in Pavement	909 L.F. @ \$	= \$
<u>36</u> 15062	6-inch DIP	871 L.F. @ \$	= \$
<u>37</u> 15062	6-inch DIP in Pavement	68 L.F. @ \$	= \$
<u>38</u> 15062	4-inch DIP	542 L.F. @ \$	= \$
<u>39</u> 15062	4-inch DIP in Pavement	200 L.F. @ \$	= \$

ITEM NO. SECTION	ITEM QUANTITY & UNIT OF MEASURE	UNIT PRICE	AMOUNT OF BID
40 15063	2-inch Copper Pipe 1,787 L.F. @	\$ _____	= \$ _____
41 15063	1-1/2-inch Copper Pipe 210 L.F. @	\$ _____	= \$ _____
42 15063	1-inch Copper Pipe 70 L.F. @	\$ _____	= \$ _____
43 15063	3/4-inch Copper Pipe 135 L.F. @	\$ _____	= \$ _____
44 15074	4-inch DI Drain Pipe 1,353 L.F. @	\$ _____	= \$ _____
45 15074	4-inch Drain Pipe Flap Valve 4 ea. @	\$ _____	= \$ _____
46 15074	6-inch DI Drain Pipe 150 L.F. @	\$ _____	= \$ _____
47 15074	6-inch Drain Pipe Flap Valved Hydrant 1 ea. @	\$ _____	= \$ _____
48 15101	10-inch Gate Valve with Valve Box 4 ea. @	\$ _____	= \$ _____
49 15101	8-inch Gate Valve with Valve Box 13 ea. @	\$ _____	= \$ _____
50 15101	6-inch Gate Valve with Valve box 15 ea. @	\$ _____	= \$ _____
51 15101	4-inch Gate Valve with Valve box 7 ea. @	\$ _____	= \$ _____
52 15101	6-inch Post Indicator Valves 5 ea. @	\$ _____	= \$ _____
53 15101	4-inch Post Indicator Valves 1 ea. @	\$ _____	= \$ _____
54 15109	2-inch Type 1 Service Connection 16 ea. @	\$ _____	= \$ _____
55 15109	1-1/2-inch Type 1 Service Connection 1 ea. @	\$ _____	= \$ _____

ITEM NO. SECTION	ITEM QUANTITY & UNIT OF MEASURE	UNIT PRICE	AMOUNT OF BID
<u>56</u> 15109	1-inch Type 1 Service Connection	1 ea. @ \$	= \$
<u>57</u> 15109	3/4-inch Type 1 Service Connection	3 ea. @ \$	= \$
<u>58</u> 15109	2-inch Type 2 Pumpout Drain	11 ea. @ \$	= \$
<u>59</u> 15109	1-1/2-inch Yard Hydrant	3 ea. @ \$	= \$
<u>60</u> 15110	CES 1	Lump Sum	= \$
<u>61</u> 15110	CES 2	Lump Sum	= \$
<u>62</u> 15110	CES 3	Lump Sum	= \$
<u>63</u> 15110	CES 4	Lump Sum	= \$
<u>64</u> 15110	CES 5	Lump Sum	= \$
<u>65</u> 15110	CES 6	Lump Sum	= \$
<u>66</u> 15110	CES 7	Lump Sum	= \$
<u>67</u> 15110	CES 8	Lump Sum	= \$
<u>68</u> 15110	CES 9	Lump Sum	= \$
<u>69</u> 15110	CES 10	Lump Sum	= \$
<u>70</u> 15110	CES 11	Lump Sum	= \$
<u>71</u> 15110	CES 12	Lump Sum	= \$

ITEM NO. SECTION	ITEM QUANTITY & UNIT OF MEASURE	UNIT PRICE	AMOUNT OF BID
<u>72</u> 15110	CES 13	Lump Sum	= \$ _____
<u>73</u> 15110	CES 14	Lump Sum	= \$ _____
<u>74</u> 15110	CES 15	Lump Sum	= \$ _____
<u>75</u> 15110	CES 16	Lump Sum	= \$ _____
<u>76</u> 15110	CES 17	Lump Sum	= \$ _____
<u>77</u> 15110	CES 18	Lump Sum	= \$ _____
<u>78</u> 15110	CES 19	Lump Sum	= \$ _____
<u>79</u> 15110	CES 20	Lump Sum	= \$ _____
<u>80</u> 15110	CES 21	Lump Sum	= \$ _____
<u>81</u> 15110	CES 22	Lump Sum	= \$ _____
<u>82</u> 15110	CES 23	Lump Sum	= \$ _____
<u>83</u> 15110	CES 24	Lump Sum	= \$ _____
<u>84</u> 15110	CES 25	Lump Sum	= \$ _____
<u>85</u> 15110	CES 26	Lump Sum	= \$ _____
<u>86</u> 15110	CES 27	Lump Sum	= \$ _____
<u>87</u> 15110	CES 28	Lump Sum	= \$ _____

ITEM NO. SECTION	ITEM QUANTITY & UNIT OF MEASURE	UNIT PRICE	AMOUNT OF BID
<u>88</u> 15110	CES 29	Lump Sum = \$	
<u>89</u> 15110	CES 30	Lump Sum = \$	
<u>90</u> 15110	CES 31	Lump Sum = \$	
<u>91</u> 15110	CES 32	Lump Sum = \$	
<u>92</u> 15110	CES 33	Lump Sum = \$	
<u>93</u> 15110	CES 34	Lump Sum = \$	
<u>94</u> 15110	CES 35	Lump Sum = \$	
<u>95</u> 15110	CES 36	Lump Sum = \$	
<u>96</u> 15110	CES 37	Lump Sum = \$	
<u>97</u> 15110	CES 38	Lump Sum = \$	
<u>98</u> 15110	CES 39	Lump Sum = \$	
<u>99</u> 15110	CES 40	Lump Sum = \$	
<u>100</u> 15110	CES 41	Lump Sum = \$	
<u>101</u> 15110	CES 42	Lump Sum = \$	
<u>102</u> 15110	CES 43	Lump Sum = \$	
<u>103</u> 15110	CES 44	Lump Sum = \$	

ITEM NO. SECTION	ITEM QUANTITY & UNIT OF MEASURE	UNIT PRICE	AMOUNT OF BID
<u>104</u> 15130	Pressure Reducing Valve Vault	Lump Sum = \$	
<u>105</u> 15170	Meter 1	Lump Sum = \$	
<u>106</u> 15170	Meter 2	Lump Sum = \$	
<u>107</u> 15170	Meter 3	Lump Sum = \$	
<u>108</u> 15170	Meter 4	Lump Sum = \$	
<u>109</u> 15170	Meter 5	Lump Sum = \$	
<u>110</u> 15170	Meter 6	Lump Sum = \$	
<u>111</u> 15170	Meter 7	Lump Sum = \$	
<u>112</u> 15170	Meter 8	Lump Sum = \$	
<u>113</u> 15170	Meter 9	Lump Sum = \$	
<u>114</u> 15170	Meter 10	Lump Sum = \$	
<u>115</u> 15170	Meter 11	Lump Sum = \$	
<u>116</u> 15170	Meter 12	Lump Sum = \$	
<u>117</u> 15170	Meter 13	Lump Sum = \$	
<u>118</u> 15170	Meter 14	Lump Sum = \$	
<u>119</u> 15170	Meter 15	Lump Sum = \$	

ITEM NO. SECTION	ITEM QUANTITY & UNIT OF MEASURE	UNIT PRICE	AMOUNT OF BID
<u>120</u> 15170	Meter 16	Lump Sum = \$	
<u>121</u> 15170	Meter 17	Lump Sum = \$	
<u>122</u> 15170	Meter 18	Lump Sum = \$	
<u>123</u> 15170	Meter 19	Lump Sum = \$	
<u>124</u> 15170	Meter 20	Lump Sum = \$	
<u>125</u> 15170	Meter 21	Lump Sum = \$	
<u>126</u> 15170	Meter 22	Lump Sum = \$	
<u>127</u> 15170	Meter 23	Lump Sum = \$	
<u>128</u> 15170	Meter 24	Lump Sum = \$	
<u>129</u> 15170	Meter 25	Lump Sum = \$	
<u>130</u> 15171	Refurbish Motor Lodge Meter Vaults	Lump Sum = \$	
<u>131</u> 15302	8-inch Sewer Crossing Pipe	87 L.F. @ \$ = \$	
<u>132</u> 15302	8-inch Sewer Pipe Coupling	6 ea. @ \$ = \$	
<u>133</u> 15302	6-inch Sewer Crossing Pipe	105 L.F. @ \$ = \$	
<u>134</u> 15302	6-inch Sewer Pipe Coupling	10 ea. @ \$ = \$	
<u>135</u> 15302	4-inch Sewer Crossing Pipe	25 L.F. @ \$ = \$	

ITEM NO. SECTION	ITEM QUANTITY & UNIT OF MEASURE	UNIT PRICE	AMOUNT OF BID
<u>136</u> 15302	4-inch Sewer Pipe Coupling	2 ea. @ \$	= \$
<u>137</u> 15333	Potable Water Line Drain Manhole	1 ea. @ \$	= \$
<u>138</u> 15502	Fire Hydrants	10 ea. @ \$	= \$
<u>139</u> 15505	Fire Service Vault No. 1	Lump Sum = \$	
<u>140</u> 15505	Fire Service Vault No. 2	Lump Sum = \$	
<u>141</u> 15505	Fire Service Vault No. 3	Lump Sum = \$	
<u>142</u> 15505	Registration Building Fire Service Connection	Lump Sum = \$	

BID SUMMARY

TOTAL BID (Items 1 through 142)----- \$

Above quantities, except lump sum, are estimated and will be used to solicit bids, but payment will be made only for actual quantities of work completed. Award will be made to one bidder in accordance with Clause 10 of the Instructions to Bidders.

END

ATTACHMENT TO BID FORM, SF-21
INFORMATION REGARDING BUY AMERICAN ACT

- (a) The Buy American Act (41 U.S.C. 10a-10d) generally requires that only domestic construction material be used in the performance of this contract. (See the clause entitled "Buy American" in Standard Form 23A, General Provisions, Construction Contracts.) This requirement does not apply to the following construction material or components:

Acetylene black	Menthol, natural bulk
Asbestos, amosite	Mica
Bananas	Nickel primary, in ingots, pigs, shot, cathodes, or similar forms, nickel oxide and nickel salts
Beef extract	Nitroguanidine (also known as picrite)
Bismuth	Olive oil
Books, pamphlets, newspapers, magazines, periodicals, printed briefs, and films which are not printed in the United States and for which domestic editions are not available	Olives (green), pitted or stuffed or bulk
Brazil nuts, unroasted	Opium, crude
Cadmium, ores and flue dust	Petroleum, crude oil, unfinished oils and finished products
Calcium cyanamide	Platinum and platinum group metals refined, as sponge, powder, ingots, or cast bars
Capers	Pyrethrum flowers
Cashew nuts	Quartz crystals
Chicle	Quebracho
Chrome ore or chromite	Quinidine
Cinchona bark	Radium salts
Cobalt, in cathodes, rondelles, or other primary forms	Rubber, crude and latex
Cocoa beans	Rutile
Coconut and coconut meat, unsweetened, in shredded, dessicated, or similarly prepared form	Sperm oil
Coffee, raw or green bean	Spices and herbs in bulk
Cork, wood or bark and waste	Sugars, raw
Diamonds, industrial, stones	Swords
Emetine, bulk	Talc, block steatite
Ergot, crude	Tapioca flour and cassava
Fair linen, altar	Tartar, crude, tartaric acid and cream of tartar in bulk
Fibers of the following types: Abaca, agave, coir, jute and palmyra	Tea in bulk
Goat and kid skins	Tin in bars, blocks and pigs
Graphite, natural	Vanilla beans
Hog bristles for brushes	Venom, cobra
Hyoscine, bulk	Wax, carnauba
Ipecac, root	Woods of the following species: Angelique, balsa, ekki, greenheart, lignum vitae, mahogany, and teak

- (b) (1) Furthermore, bids or proposals offering use of additional non-domestic construction material may be acceptable for award if the Government determines that use of comparable domestic construction material is impracticable or would unreasonably increase the cost of that domestic construction material (in sufficient and reasonably available commercial quantities and of a satisfactory quality) is unavailable. Reliable evidence shall be furnished justifying such use of additional non-domestic construction material.
- (2) Where it is alleged that use of domestic construction material would unreasonably increase the cost:
- (i) Data shall be included by the bidder, based on a reasonable canvass of suppliers, demonstrating that the cost of each such domestic construction material would exceed by more than 6 percent the cost of comparable non-domestic construction material. (All costs of delivery to the construction site shall be included, as well as any applicable duty.)

**ADDITIONAL NONDOMESTIC CONSTRUCTION
MATERIALS COST COMPARISON**

Identification of material	Quantity	Cost (dollars) ¹
Item 1:		
Nondomestic materials _____		
Comparable domestic material _____		
Item 2:		
Nondomestic material _____		
Comparable domestic material _____		
Totals: _____		

¹ Delivered to construction site.

- (ii) For evaluation purposes, 6 percent of the cost of all additional non-domestic construction material, which qualifies under paragraph (i) above will be added to the bid or proposal.
- (3) When offering additional non-domestic construction material, bids or proposals may also offer, at stated prices, any available comparable domestic construction material, so as to avoid the possibility that failure of a non-domestic construction material to be acceptable under (1) above, will cause rejection of the entire bid. However, unless the bidder/offeror specifically states that alternate bid or proposal prices are being submitted for specific items of the bid schedule (based on prices listed for comparable domestic materials), the bid or proposal will be evaluated only on the basis of nondomestic construction materials.

REPRESENTATIONS AND CERTIFICATIONS**(Construction and Architect-Engineer Contract)****(For use with Standard Forms 19, 21 and 252)**

REFERENCE (Enter same No.(s) as on SF 19, 21 and 252)

IFB 1570-82C

NAME AND ADDRESS OF BIDDER (No., Street, City, State, and ZIP Code)

DATE OF BID

In negotiated procurements, "bid" and "bidder" shall be construed to mean "offer" and "offeror."

The bidder makes the following representations and certifications as a part of the bid identified above. (Check appropriate boxes.)

1. SMALL BUSINESS

He ☐ is, ☐ is not, a small business concern. (A small business concern for the purpose of Government procurement is a concern, including its affiliates, which is independently owned and operated, is not dominant in the field of operations in which it is bidding on Government contracts, and can further qualify under the criteria concerning number of employees, average annual receipts, or other criteria as prescribed by the Small Business Administration. For additional information see governing regulations of the Small Business Administration (13 CFR Part 121)).

2. SMALL DISADVANTAGED BUSINESS CONCERN

He ☐ is ☐ is not a small business concern owned and controlled by socially and economically disadvantaged individuals as defined in the clause entitled "Utilization of Small Business Concerns and Small Business Concerns Owned and Controlled by Socially and Economically Disadvantaged Individuals" of the General Provisions.

3. CONTINGENT FEE

(a) He ☐ has, ☐ has not, employed or retained any company or person (other than a full-time bona fide employee working solely for the bidder) to solicit or secure this contract, and (b) he ☐ has, ☐ has not, paid or agreed to pay any company or person (other than a full-time bona fide employee working solely for the bidder) any fee, commission, percentage or brokerage fee, contingent upon or resulting from the award of this contract; and agrees to furnish information relating to (a) and (b) above as requested by the Contracting Officer. (For interpretation of the representation, including the term "bona fide employee," see Code of Federal Regulations, Title 41, Subpart 1-1.5.)

4. TYPE OF ORGANIZATION

He operates as an ☐ individual, ☐ partnership, ☐ joint venture, ☐ corporation, incorporated in State of

5. INDEPENDENT PRICE DETERMINATION

(a) By submission of this bid, each bidder certifies, and in the case of a joint bid each party thereto certifies as to his own organization, that in connection with this procurement:

(1) The prices in this bid have been arrived at independently, without consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor;

(2) Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, in the case of a bid, or prior to award, in the case of a proposal, directly or indirectly to any other bidder or to any competitor; and

(3) No attempt has been made or will be made by the bidder to induce any other person or firm to submit or not to submit a bid for the purpose of restricting competition.

(b) Each person signing this bid certifies that:

(1) He is the person in the bidder's organization responsible within that organization for the decision as to the prices being bid herein and that he has not participated, and will not participate, in any action contrary to (a)(1) through (a)(3) above; or

(2) (i) He is not the person in the bidder's organization responsible within that organization for the decision as to the prices being bid herein but that he has been authorized in writing to act as agent for the persons responsible for such decision in certifying that such persons have not participated, and will not participate, in any action contrary to (a)(1) through (a)(3) above, and as their agent does hereby so certify; and (ii) he has not participated, and will not participate, in any action contrary to (a)(1) through (a)(3) above.

(c) This certification is not applicable to a foreign bidder submitting a bid for a contract which requires performance or delivery outside the United States, its possessions, and Puerto Rico.

(d) A bid will not be considered for award where (a)(1), (a)(3), or (b) above, has been deleted or modified. Where (a)(2) above, has been deleted or modified, the bid will not be considered for award unless the bidder furnishes with the bid a signed statement which sets forth in detail the circumstances of the disclosure and the head of the agency, or his designee, determines that such disclosure was not made for the purpose of restricting competition.

NOTE.—Bids must set forth full, accurate, and complete information as required by this invitation for bids (including attachments). The penalty for making false statements in bids is prescribed in 18 U.S.C. 1001.

THE FOLLOWING NEED BE CHECKED ONLY IF BID EXCEEDS \$10,000 IN AMOUNT.

6. EQUAL OPPORTUNITY

He ☐ has, ☐ has not, participated in a previous contract or subcontract subject to the Equal Opportunity Clause herein, the clause originally contained in Section 301 of Executive Order No. 10925, or the clause contained in Section 201 of Executive Order No. 11114; he ☐ has, ☐ has not, filed all required compliance reports; and representations indicating submission of required compliance reports, signed by proposed subcontractors, will be obtained prior to subcontract awards.

(The above representations need not be submitted in connection with contracts or subcontracts which are exempt from the equal opportunity clause.)

7. PARENT COMPANY AND EMPLOYER IDENTIFICATION NUMBER


Each bidder shall furnish the following information by filling in the appropriate blocks:

(a) Is the bidder owned or controlled by a parent company as described below? ☐ Yes ☐ No. (For the purpose of this bid, a parent company is defined as one which either owns or controls the activities and basic business policies of the bidder. To own another company means the parent company must own at least a majority (more than 50 percent) of the voting rights in that company. To control another company, such ownership is not required; if another company is able to formulate, determine, or veto basic business policy decisions of the bidder, such other company is considered the parent company of the bidder. This control may be exercised through the use of dominant minority voting rights, use of proxy voting, contractual arrangements, or otherwise.)

(b) If the answer to (a) above is "Yes," bidder shall insert in the space below the name and main office address of the parent company.

NAME OF PARENT COMPANY	MAIN OFFICE ADDRESS (No., Street, City, State, and ZIP Code)
------------------------	--

(c) Bidder shall insert in the applicable space below, if he has no parent company, his own Employer's Identification Number (E.I. No.) (Federal Social Security Number used on Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941), or, if he has a parent company, the E.I. No. of his parent company.

EMPLOYER IDENTIFICATION NUMBER OF		PARENT COMPANY	BIDDER
--------------------------------------	---	----------------	--------

8. CERTIFICATION OF NONSEGREGATED FACILITIES

(Applicable to (1) contracts, (2) subcontracts, and (3) agreements with applicants who are themselves performing federally assisted construction contracts, exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause.)

By the submission of this bid, the bidder, offeror, applicant, or subcontractor certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. He certifies further that he will not maintain or provide for his employees any segregated facilities at any of his establishments, and that he will not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The bidder, offeror, applicant, or subcontractor agrees that a breach of this certification is a violation of the Equal Opportunity clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin, because of habit, local custom, or otherwise. He further agrees that (except where he has obtained identical certifications from proposed subcontractors for specific time periods) he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause; that he will retain such certifications in his files; and that he will forward the following notice to such proposed subcontractors (except where the proposed subcontractors have submitted identical certifications for specific time periods):

NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENT FOR CERTIFICATIONS OF NONSEGREGATED FACILITIES

A Certification of Nonsegregated Facilities must be submitted prior to the award of a subcontract exceeding \$10,000 which is not exempt from the provisions of the Equal Opportunity clause. The certification may be submitted either for each subcontract or for all subcontracts during a period (i.e., quarterly, semiannually, or annually).

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

9. CLEAN AIR AND WATER

(Applicable if the bid or offer exceeds \$100,000, or the contracting officer has determined that orders under an indefinite quantity contract in any year will exceed \$100,000, or a facility to be used has been the subject of a conviction under the Clean Air Act (42 U.S.C. 1857c-8(c)(1)) or the Federal Water Pollution Control Act (33 U.S.C. 1319(c)) and is listed by EPA, or is not otherwise exempt.)

The bidder or offeror certifies as follows:

(a) Any facility to be utilized in the performance of this proposed contract has ☐, has not ☐, been listed on the Environmental Protection Agency List of Violating Facilities.

(b) He will promptly notify the contracting officer, prior to award, of the receipt of any communication from the Director, Office of Federal Activities, Environmental Protection Agency, indicating that any facility which he proposes to use for the performance of the contract is under consideration to be listed on the EPA List of Violating Facilities.

(c) He will include substantially this certification, including this paragraph (c), in every nonexempt subcontract.

10. WOMAN-OWNED BUSINESS

Concern is ☐ is not ☐ a woman-owned business.

A woman-owned business is a business which is at least 51 percent owned, controlled, and operated by a woman or women. Controlled is defined as exercising the power to make policy decisions. Operated is defined as actively involved in the day-to-day management.

For the purpose of this definition, businesses which are publicly owned, joint stock associations, and business trusts are exempted. Exempted business may voluntarily represent that they are, or are not, woman-owned if this information is available.

11. PERCENT OF FOREIGN CONTENT

The offeror/contractor will represent (as an estimate), immediately after the award of a contract, the percent of the foreign content of the item or service being procured expressed as a percent of the contract award price (accuracy within plus or minus 5 percent is acceptable).

12. After award, if contract exceeds 10,000, Contractor will be requested to identify its Principal Place of Performance and furnish its DUNS Contractor Establishment Number if one has been assigned.

STANDARD FORM 24 JUNE 1964 EDITION GENERAL SERVICES ADMINISTRATION FED. PROC. REG. (41 CFR) 1-16.801				24-103		DATE BOND EXECUTED (Must not be later than bid opening date)	
BID BOND (See Instructions on reverse)							
PRINCIPAL (Legal name and business address)						TYPE OF ORGANIZATION ("X" one)	
						<input type="checkbox"/> INDIVIDUAL <input type="checkbox"/> PARTNERSHIP <input type="checkbox"/> JOINT VENTURE <input type="checkbox"/> CORPORATION	
						STATE OF INCORPORATION	
SURETY(IES) (Name and business address)							
PENAL SUM OF BOND				BID IDENTIFICATION			
PERCENT OF BID PRICE	AMOUNT NOT TO EXCEED				BID DATE	INVITATION NO.	
	MILLION(S)	THOUSAND(S)	HUNDRED(S)	CENTS			
					FOR (Construction, Supplies or Services)		
<p>KNOW ALL MEN BY THESE PRESENTS, That we, the Principal and Surety(ies) hereto, are firmly bound to the United States of America (hereinafter called the Government) in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally: <i>Provided</i>, That, where the Sureties are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" as well as "severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.</p> <p>THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal has submitted the bid identified above.</p> <p>NOW, THEREFORE, if the Principal, upon acceptance by the Government of his bid identified above, within the period specified therein for acceptance (sixty (60) days if no period is specified), shall execute such further contractual documents, if any, and give such bond(s) as may be required by the terms of the bid as accepted within the time specified (ten (10) days if no period is specified) after receipt of the forms by him, or in the event of failure so to execute such further contractual documents and give such bonds, if the Principal shall pay the Government for any cost of procuring the work which exceeds the amount of his bid, then the above obligation shall be void and of no effect.</p> <p>Each Surety executing this instrument hereby agrees that its obligation shall not be impaired by any extension(s) of the time for acceptance of the bid that the Principal may grant to the Government, notice of which extension(s) to the Surety(ies) being hereby waived; provided that such waiver of notice shall apply only with respect to extensions aggregating not more than sixty (60) calendar days in addition to the period originally allowed for acceptance of the bid.</p> <p>IN WITNESS WHEREOF, the Principal and Surety(ies) have executed this bid bond and have affixed their seals on the date set forth above.</p>							
PRINCIPAL							
Signature(s)	1.		2.		Corporate Seal		
	(Seal)		(Seal)				
Name(s) & Title(s) (Typed)	1.		2.				
INDIVIDUAL SURETIES							
Signature(s)	1.		2.		(Seal)		
	(Seal)		(Seal)				
Name(s) (Typed)	1.		2.				
CORPORATE SURETY(IES)							
SURETY(IES)	Name & Address		STATE OF INC.		LIABILITY LIMIT		Corporate Seal
	Signature(s)		1.		2.		
	Name(s) & Title(s) (Typed)		1.		2.		

CORPORATE SURETY(IES) (Continued)					
SURETY B	Name & Address			STATE OF INC.	LIABILITY LIMIT
	Signature(s)	1.	2.		
	Name(s) & Title(s) (Typed)	1.	2.		
<i>Corporate Seal</i>					
SURETY C	Name & Address			STATE OF INC.	LIABILITY LIMIT
	Signature(s)	1.	2.		
	Name(s) & Title(s) (Typed)	1.	2.		
<i>Corporate Seal</i>					
SURETY D	Name & Address			STATE OF INC.	LIABILITY LIMIT
	Signature(s)	1.	2.		
	Name(s) & Title(s) (Typed)	1.	2.		
<i>Corporate Seal</i>					
SURETY E	Name & Address			STATE OF INC.	LIABILITY LIMIT
	Signature(s)	1.	2.		
	Name(s) & Title(s) (Typed)	1.	2.		
<i>Corporate Seal</i>					
SURETY F	Name & Address			STATE OF INC.	LIABILITY LIMIT
	Signature(s)	1.	2.		
	Name(s) & Title(s) (Typed)	1.	2.		
<i>Corporate Seal</i>					
SURETY G	Name & Address			STATE OF INC.	LIABILITY LIMIT
	Signature(s)	1.	2.		
	Name(s) & Title(s) (Typed)	1.	2.		
<i>Corporate Seal</i>					

INSTRUCTIONS

1. This form is authorized for use whenever a bid guaranty is required in connection with construction work or the furnishing of supplies or services. There shall be no deviation from this form without approval by the Administrator of General Services.

2. The full legal name and business address of the Principal shall be inserted in the space designated "Principal" on the face of this form. The bond shall be signed by an authorized person. Where such person is signing in a representative capacity (e.g., an attorney-in-fact), but is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved, evidence of his authority must be furnished.

3. The penal sum of the bond may be expressed as a percentage of the bid price if desired. In such cases, a maximum dollar limitation may be stipulated (e.g., 20% of the bid price but the amount not to exceed _____ dollars).

4. (a) Corporations executing the bond as sureties must be among those appearing on the Treasury Department's list of approved sureties and must be acting within

the limitations set forth therein. Where more than a single corporate surety is involved, their names and addresses (city and State) shall be inserted in the spaces (Surety A, Surety B, etc.) headed "CORPORATE SURETY(IES)", and in the space designated "SURETY(IES)" on the face of this form only the letter identification of the Sureties shall be inserted.

(b) Where individual sureties execute the bond, they shall be two or more responsible persons. A completed Affidavit of Individual Surety (Standard Form 28), for each individual surety, shall accompany the bond. Such sureties may be required to furnish additional substantiating information concerning their assets and financial capability as the Government may require.

5. Corporations executing the bond shall affix their corporate seals. Individuals shall execute the bond opposite the word "Seal"; and, if executed in Maine or New Hampshire, shall also affix an adhesive seal.

6. The name of each person signing this bid bond should be typed in the space provided.

CONSTRUCTION CONTRACT
(See instructions on reverse)

CONTRACT NO.

DATE OF CONTRACT

NAME AND ADDRESS OF CONTRACTOR

CHECK APPROPRIATE BOX

- ☐ Individual
☐ Partnership
☐ Joint Venture
☐ Corporation, incorporated in the
State of _____

DEPARTMENT OR AGENCY

CONTRACT FOR (*Work to be performed*)

PLACE

CONTRACT PRICE (*Express in words and figures*)

ADMINISTRATIVE DATA (*Optional*)

The United States of America (hereinafter called the Government), represented by the Contracting Officer executing this contract, and the individual, partnership, joint venture, or corporation named above (hereinafter called the Contractor), mutually agree to perform this contract in strict accordance with the General Provisions (Standard Form 23-A), Labor Standards Provisions Applicable to Contracts in Excess of \$2,000 (Standard Form 19-A), and the following designated specifications, schedules, drawings, and conditions:

WORK SHALL BE STARTED

WORK SHALL BE COMPLETED

Alterations. The following alterations were made in this contract before it was signed by the parties hereto:

In witness whereof, the parties hereto have executed this contract as of the date entered on the first page hereof.

THE UNITED STATES OF AMERICA

CONTRACTOR

By _____

(Name of Contractor)

(Official title)

By _____
(Signature)

(Title)

INSTRUCTIONS

1. The full name and business address of the Contractor must be inserted in the space provided on the face of the form. The Contractor shall sign in the space provided above with his usual signature and typewrite or print his name under the signature.

2. An officer of a corporation, a member of a partnership, or an agent signing for the Contractor shall place his signature and title after the word "By" under the name of the Contractor. A contract executed by an attorney or agent on behalf of the Contractor shall be accompanied by two authenticated copies of his power of attorney or other evidence of his authority to act on behalf of the Contractor.

PERFORMANCE BOND
(See Instructions on reverse)

DATE BOND EXECUTED (Must be same or later than date of contract)

PRINCIPAL (Legal name and business address)

TYPE OF ORGANIZATION (X one)

☐ INDIVIDUAL ☐ PARTNERSHIP
☐ JOINT VENTURE ☐ CORPORATION

STATE OF INCORPORATION

SURETY(IES) (Name(s) and business address(es))

PENAL SUM OF BOND

MILLION(S) THOUSAND(S) HUNDRED(S) CENT(S)

CONTRACT DATE

CONTRACT NO.

KNOW ALL MEN BY THESE PRESENTS, That we, the Principal and Surety(ies) hereto, are firmly bound to the United States of America (hereinafter called the Government) in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally: *Provided*, That, where the Sureties are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" as well as "severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal entered into the contract identified above;

NOW, THEREFORE, if the Principal shall:

(a) Perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term of said contract and any extensions thereof that may be granted by the Government, with or without notice to the Surety(ies), and during the life of any guaranty required under the contract, and shall also perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to the Surety(ies) being hereby waived; and

(b) If the said contract is subject to the Miller Act, as amended (40 U.S.C. 270a-270e), pay to the Government the full amount of the taxes imposed by the Government which are collected, deducted, or withheld from wages paid by the Principal in carrying out the construction contract with respect to which this bond is furnished; then the above obligation shall be void and of no effect.

IN WITNESS WHEREOF, the Principal and Surety(ies) have executed this performance bond and have affixed their seals on the date set forth above.

PRINCIPAL

Signature(s)	1	2	Corporate Seal
	(Seal)	(Seal)	
Name(s) & Title(s) (Typed)	1	2	

INDIVIDUAL SURETY(IES)

Signature(s)	1	2
	(Seal)	(Seal)
Name(s) (Typed)	1	2

CORPORATE SURETY(IES)

SURETY A	Name & Address	STATE OF INC	LIABILITY LIMIT	Corporate Seal
	Signature(s)	1	2	
	Name(s) & Title(s) (Typed)	1	2	

CORPORATE SURETY(IES) (Continued)						
SURETY B	Name & Address			STATE OF INC.	LIABILITY LIMIT	Corporate Seal
	Signature(s)	1	2			
	Name(s) & Title(s) (Typed)	1	2			
SURETY C	Name & Address			STATE OF INC.	LIABILITY LIMIT	Corporate Seal
	Signature(s)	1	2			
	Name(s) & Title(s) (Typed)	1	2			
SURETY D	Name & Address			STATE OF INC.	LIABILITY LIMIT	Corporate Seal
	Signature(s)	1	2			
	Name(s) & Title(s) (Typed)	1	2			
SURETY E	Name & Address			STATE OF INC.	LIABILITY LIMIT	Corporate Seal
	Signature(s)	1	2			
	Name(s) & Title(s) (Typed)	1	2			
SURETY F	Name & Address			STATE OF INC.	LIABILITY LIMIT	Corporate Seal
	Signature(s)	1	2			
	Name(s) & Title(s) (Typed)	1	2			
SURETY G	Name & Address			STATE OF INC.	LIABILITY LIMIT	Corporate Seal
	Signature(s)	1	2			
	Name(s) & Title(s) (Typed)	1	2			

BOND PREMIUM	▶	RATE PER THOUSAND \$	TOTAL \$
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INSTRUCTIONS

1. This form is authorized for use in connection with contracts for construction work or the furnishing of supplies or services. There shall be no deviation from this form without approval by the Administrator of General Services.

2. The full legal name and business address of the Principal shall be inserted in the space designated "Principal" on the face of this form. The bond shall be signed by an authorized person. Where such person is signing in a representative capacity (e.g., an attorney-in-fact), but is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved, evidence of his authority must be furnished.

3. (a) Corporations executing the bond as sureties must be among those appearing on the Treasury Department's list of approved sureties and must be acting within the limitations set forth therein. Where more than a single corporate surety is involved, their names and addresses (city and State) shall be inserted in the spaces

(Surety A, Surety B, etc.) headed "CORPORATE SURETY(IES)", and in the space designated "SURETY(IES)" on the face of this form only the letter identification of the Sureties shall be inserted.

(b) Where individual sureties execute the bond, they shall be two or more responsible persons. A completed Affidavit of Individual Surety (Standard Form 28), for each individual surety, shall accompany the bond. Such sureties may be required to furnish additional substantiating information concerning their assets and financial capability as the Government may require.

4. Corporations executing the bond shall affix their corporate seals. Individuals shall execute the bond opposite the word "Seal"; and, if executed in Maine or New Hampshire, shall also affix an adhesive seal.

5. The name of each person signing this performance bond should be typed in the space provided.

PAYMENT BOND
(See Instructions on reverse)

25-203

DATE BOND EXECUTED (Must be same or later than date of contract)

PRINCIPAL (Legal name and business address)

TYPE OF ORGANIZATION ("X" one)

☐ INDIVIDUAL ☐ PARTNERSHIP
☐ JOINT VENTURE ☐ CORPORATION

STATE OF INCORPORATION

SURETY(IES) (Name(s) and business address(es))

PENAL SUM OF BOND

MILLION(S) THOUSAND(S) HUNDRED(S) CENT(S)

CONTRACT DATE

CONTRACT NO.

KNOW ALL MEN BY THESE PRESENTS, That we, the Principal and Surety(ies) hereto, are firmly bound to the United States of America (hereinafter called the Government) in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally: *Provided*, That, where the Sureties are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" as well as "severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal entered into the contract identified above;

NOW, THEREFORE, if the Principal shall promptly make payment to all persons supplying labor and material in the prosecution of the work provided for in said contract, and any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to the Surety(ies) being hereby waived, then the above obligation shall be void and of no effect.

IN WITNESS WHEREOF, the Principal and Surety(ies) have executed this payment bond and have affixed their seals on the date set forth above.

PRINCIPAL

Signature(s)	1	2	Corporate Seal
	(Seal)	(Seal)	
Name(s) & Title(s) (Typed)	1	2	

INDIVIDUAL SURETY(IES)

Signature(s)	1	2
	(Seal)	(Seal)
Name(s) (Typed)	1	2

CORPORATE SURETY(IES)

SURETY A	Name & Address	STATE OF INC	LIABILITY LIMIT	Corporate Seal
	Signature(s)	1	2	
	Name(s) & Title(s) (Typed)	1	2	

CORPORATE SURETY(IES) (Continued)						
SURETY B	Name & Address			STATE OF INC	LIABILITY LIMIT	Corporate Seal
	Signature(s)	1.	2.			
	Name(s) & Title(s) (Typed)	1.	2.			
SURETY C	Name & Address			STATE OF INC	LIABILITY LIMIT	Corporate Seal
	Signature(s)	1.	2.			
	Name(s) & Title(s) (Typed)	1.	2.			
SURETY D	Name & Address			STATE OF INC	LIABILITY LIMIT	Corporate Seal
	Signature(s)	1.	2.			
	Name(s) & Title(s) (Typed)	1.	2.			
SURETY E	Name & Address			STATE OF INC	LIABILITY LIMIT	Corporate Seal
	Signature(s)	1.	2.			
	Name(s) & Title(s) (Typed)	1.	2.			
SURETY F	Name & Address			STATE OF INC	LIABILITY LIMIT	Corporate Seal
	Signature(s)	1.	2.			
	Name(s) & Title(s) (Typed)	1.	2.			
SURETY G	Name & Address			STATE OF INC	LIABILITY LIMIT	Corporate Seal
	Signature(s)	1.	2.			
	Name(s) & Title(s) (Typed)	1.	2.			

INSTRUCTIONS

1. This form, for the protection of persons supplying land and material, shall be used whenever a payment bond is required under the act of August 24, 1935, 49 Stat. 793, as amended (40 U.S.C. 270a-270e). There shall be no deviation from this form without approval by the Administrator of General Services.

2. The full legal name and business address of the Principal shall be inserted in the space designated "Principal" on the face of the form. The bond shall be signed by an authorized person. Where such person is signing in a representative capacity (e.g., an attorney-in-fact), but is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved, evidence of his authority must be furnished.

3. (a) Corporations executing the bond as sureties must be among those appearing on the Treasury Department's list of approved sureties and must be acting within the limitations set forth therein. Where more than a single corporate surety is involved, their names and addresses (city

and State) shall be inserted in the spaces (Surety A, Surety B, etc.) headed "CORPORATE SURETY(IES)", and in the space designated "SURETY(IES)" on the face of this form only the letter identification of the Sureties shall be inserted.

(b) Where individual sureties execute the bond, they shall be two or more responsible persons. A completed Affidavit of Individual Surety (Standard Form 28), for each individual surety, shall accompany the bond. Such sureties may be required to furnish additional substantiating information concerning their assets and financial capability as the Government may require.

4. Corporations executing the bond shall affix their corporate seals. Individuals shall execute the bond opposite the word "Seal"; and, if executed in Maine or New Hampshire, shall also affix an adhesive seal.

5. The name of each person signing this payment bond should be typed in the space provided.

INDEX TO CLAUSES OF THE GENERAL PROVISIONS

GENERAL PROVISIONS (CONSTRUCTION CONTRACT)

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GENERAL PROVISIONS

(Construction Contract)

DEFINITIONS

(a) The term "head of the agency" or "Secretary" as used herein means the Secretary, the Under Secretary, any Assistant Secretary, or any other head or assistant head of the executive or military department or other Federal agency; and the term "his duly authorized representative" means any person or persons or board (other than the Contracting Officer) authorized to act for the head of the agency or the Secretary.

(b) The term "Contracting Officer" as used herein means the person executing this contract on behalf of the Government and includes a duly appointed successor or authorized representative.

SPECIFICATIONS AND DRAWINGS

The Contractor shall keep on the work a copy of the drawings and specifications and shall at all times give the Contracting Officer access thereto. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both. In case of difference between drawings and specifications, the specifications shall govern. In case of discrepancy either in the figures, in the drawings, or in the specifications, the matter shall be promptly submitted to the Contracting Officer, who shall promptly make a determination in writing. Any adjustment by the Contractor without such a determination shall be at his own risk and expense. The Contracting Officer shall furnish from time to time such detail drawings and other information as he may consider necessary, unless otherwise provided.

CHANGES

(a) The Contracting Officer may, at any time, without notice to the sureties, by written order designated or indicated to be change order, make any change in the work within the general scope of the contract, including but not limited to changes:

(1) In the specifications (including drawings and designs);

(2) In the method or manner of performance of the work;

(3) In the Government-furnished facilities, equipment, materials, services, or site; or

(4) Directing acceleration in the performance of the work.

(b) Any other written order or an oral order (which terms used in this paragraph (b) shall include direction, instruction, interpretation, or determination) from the Contracting Officer, which causes any such change, shall be treated as a change order under this clause, provided that the Contractor gives the Contracting Officer written notice stating the date, circumstances, and source of the order and that the Contractor regards the order as a change order.

(c) Except as herein provided, no order, statement, or product of the Contracting Officer shall be treated as a change under this clause or entitle the Contractor to an equitable adjustment hereunder.

(d) If any change under this clause causes an increase or decrease in the Contractor's cost of, or the time required for, the performance of any part of the work under this contract, whether or not changed by any order, an equitable adjustment shall be made and the contract modified in writing accordingly: *Provided, however,* That except for claims based on defective specifications, no claim for any change under (b) above shall be allowed for any costs incurred more than 20 days before the Contractor gives written notice herein required: *And provided further,* That in the case of defective specifications for which the Government is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the Contractor in attempting to comply with such defective specifications.

(e) If the Contractor intends to assert a claim for an equitable adjustment under this clause, he must, within 10 days after receipt of a written change order under (a) above or the furnishing of a written notice under (b) above, submit to the Contracting Officer a written statement setting forth the general nature and monetary extent of such claim,

unless this period is extended by the Government. The statement of claim hereunder may be included in the notice under (b) above.

(f) No claim by the Contractor for an equitable adjustment hereunder shall be allowed if asserted after final payment under this contract.

4. DIFFERING SITE CONDITIONS

(a) The Contractor shall promptly, and before such conditions are disturbed, notify the Contracting Officer in writing of: (1) Subsurface or latent physical conditions at the site differing materially from those indicated in this contract, or (2) unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in this contract. The Contracting Officer shall promptly investigate the conditions, and if he finds that such conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performance of any part of the work under this contract, whether or not changed as a result of such conditions, an equitable adjustment shall be made and the contract modified in writing accordingly.

(b) No claim of the Contractor under this clause shall be allowed unless the Contractor has given the notice required in (a) above; provided, however, the time prescribed therefor may be extended by the Government.

(c) No claim by the Contractor for an equitable adjustment hereunder shall be allowed if asserted after final payment under this contract.

5. TERMINATION FOR DEFAULT—DAMAGES FOR DELAY—TIME EXTENSIONS

(a) If the Contractor refuses or fails to prosecute the work, or any separable part thereof, with such diligence as will insure its completion within the time specified in this contract, or any extension thereof, or fails to complete said work within such time, the Government may, by written notice to the Contractor, terminate his right to proceed with the work or such part of the work as to which there has been delay. In such event the Government may take over the work and prosecute the same to completion, by contract or otherwise, and may take possession of and utilize in completing the work such materials, appliances, and plant as may be on the site of the work and necessary therefor. Whether or not the Contractor's right to proceed with the work is terminated, he and his sureties shall be liable for any damage to the Government resulting from his refusal or failure to complete the work within the specified time.

(b) If fixed and agreed liquidated damages are provided in the contract and if the Government so terminates the Contractor's right to proceed, the resulting damage will consist of such liquidated damages until such reasonable time as may be required for final completion of the work together with any increased costs occasioned the Government in completing the work.

(c) If fixed and agreed liquidated damages are provided in the contract and if the Government does not so terminate the Contractor's right to proceed, the resulting damage will consist of such liquidated damages until the work is completed or accepted.

(d) The Contractor's right to proceed shall not be so terminated nor the Contractor charged with resulting damage if:

(1) The delay in the completion of the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including but not restricted to, acts of God, acts of the public enemy, acts of the Government in either its sovereign or contractual capacity, acts of another contractor in the performance of a contract with the Government, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, unusually severe weather, or delays of subcontractors or suppliers arising from unforeseeable causes beyond the control and without the fault or negligence of both the Contractor and such subcontractors or suppliers; and

(2) The Contractor, within 10 days from the beginning of any such delay (unless the Contracting Officer grants a further period of time before the date of final payment

under the contract), notifies the Contracting Officer in writing of the causes of delay.

The Contracting Officer shall ascertain the facts and the extent of the delay and extend the time for completing the work when, in his judgment, the findings of fact justify such an extension, and his findings of fact shall be final and conclusive on the parties, subject only to appeal as provided in Clause 6 of these General Provisions.

(e) If, after notice of termination of the Contractor's right to proceed under the provisions of this clause, it is determined for any reason that the Contractor was not in default under the provisions of this clause, or that the delay was excusable under the provisions of this clause, the rights and obligations of the parties shall, if the contract contains a clause providing for termination for convenience of the Government, be the same as if the notice of termination had been issued pursuant to such clause. If, in the foregoing circumstances, this contract does not contain a clause providing for termination for convenience of the Government, the contract shall be equitably adjusted to compensate for such termination and the contract modified accordingly; failure to agree to any such adjustment shall be a dispute concerning a question of fact within the meaning of the clause of this contract entitled "Disputes."

(f) The rights and remedies of the Government provided in this clause are in addition to any other rights and remedies provided by law or under this contract.

(g) As used in Paragraph (d) (1) of this clause, the term "subcontractors or suppliers" means subcontractors or suppliers at any tier.

6. DISPUTES

(a) Except as otherwise provided in this contract, any dispute concerning a question of fact arising under this contract which is not disposed of by agreement shall be decided by the Contracting Officer, who shall reduce his decision to writing and mail or otherwise furnish a copy thereof to the Contractor. The decision of the Contracting Officer shall be final and conclusive unless, within 30 days from the date of receipt of such copy, the Contractor mails or otherwise furnishes to the Contracting Officer a written appeal addressed to the head of the agency involved. The decision of the head of the agency or his duly authorized representative for the determination of such appeals shall be final and conclusive. This provision shall not be pleaded in any suit involving a question of fact arising under this contract as limiting judicial review of any such decision to cases where fraud by such official or his representative or board is alleged: *Provided, however,* That any such decision shall be final and conclusive unless the same is fraudulent or capricious or arbitrary or so grossly erroneous as necessarily to imply bad faith or is not supported by substantial evidence. In connection with any appeal proceeding under this clause, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of his appeal. Pending final decision of a dispute hereunder, the Contractor shall proceed diligently with the performance of the contract and in accordance with the Contracting Officer's decision.

(b) This Disputes clause does not preclude consideration of questions of law in connection with decisions provided for in paragraph (a) above. Nothing in this contract, however, shall be construed as making final the decision of any administrative official, representative, or board on a question of law.

7. PAYMENTS TO CONTRACTOR

(a) The Government will pay the contract price as herein-after provided.

(b) The Government will make progress payments monthly as the work proceeds, or at more frequent intervals as determined by the Contracting Officer, on estimates approved by the Contracting Officer. If requested by the Contracting Officer, the Contractor shall furnish a breakdown of the total contract price showing the amount included therein for each principal category of the work, in such detail as requested, to provide a basis for determining progress payments. In the preparation of estimates the Contracting Officer, at his discretion, may authorize material delivered on the site and preparatory work done to be taken into consideration. Material delivered to the Contractor at locations other than the site may also be taken into consideration (1) if such consideration is specifically authorized by the contract and (2) if the Contractor furnishes satisfactory evidence that he has acquired title to such material and that it will be utilized on the work covered by this contract.

(c) In making such progress payments, there shall be retained 10 percent of the estimated amount until final com-

pletion and acceptance of the contract work. However, if the Contracting Officer, at any time after 50 percent of the work has been completed, finds that satisfactory progress is being made, he may authorize payment in full of each progress payment for work performed beyond the 50 percent stage of completion. Also, whenever the work is substantially complete, the Contracting Officer, if he considers the amount retained to be in excess of the amount adequate for the protection of the Government, at his discretion, may release to the Contractor all or a portion of such excess amount. Furthermore, on completion and acceptance of each separate building, public work, or other division of the contract, on which the price is stated separately in the contract, payment may be made therefor without retention of a percentage.

(d) All material and work covered by progress payments made shall thereupon become the sole property of the Government, but this provision shall not be construed as relieving the Contractor from the sole responsibility for all material and work upon which payments have been made or the restoration of any damaged work, or as waiving the right of the Government to require the fulfillment of all of the terms of the contract.

(e) Upon completion and acceptance of all work, the amount due the Contractor under this contract shall be paid upon the presentation of a properly executed voucher and after the Contractor shall have furnished the Government with a release of all claims against the Government arising by virtue of this contract, other than claims in stated amounts as may be specifically excepted by the Contractor from the operation of the release. If the Contractor's claim to amounts payable under the contract has been assigned under the Assignment of Claims Act of 1940, as amended (31 U.S.C. 203, 41 U.S.C. 15), a release may also be required of the assignee.

8. ASSIGNMENT OF CLAIMS

(a) Pursuant to the provisions of the Assignment of Claims Act of 1940, as amended (31 U.S.C. 203, 41 U.S.C. 15), if this contract provides for payments aggregating \$1,000 or more, claims for moneys due or to become due the Contractor from the Government under this contract may be assigned to a bank, trust company, or other financing institution, including any Federal lending agency, and may thereafter be further assigned and reassigned to any such institution. Any such assignment or reassignment shall cover all amounts payable under this contract and not already paid, and shall not be made to more than one party, except that any such assignment or reassignment may be made to one party as agent or trustee for two or more parties participating in such financing. Unless otherwise provided in this contract, payments to an assignee of any moneys due or to become due under this contract shall not, to the extent provided in said Act, as amended, be subject to reduction or setoff. (The preceding sentence applies only if this contract is made in time of war or national emergency as defined in said Act; and is with the Department of Defense, the General Services Administration, the Energy Research and Development Administration, the National Aeronautics and Space Administration, the Federal Aviation Administration, or any other department or agency of the United States designated by the President pursuant to Clause 4 of the proviso of section 1 of the Assignment of Claims Act of 1940, as amended by the Act of May 15, 1951, 65 Stat. 41.)

(b) In no event shall copies of this contract or of any plans, specifications, or other similar documents relating to work under this contract, if marked "Top Secret," "Secret," or "Confidential," be furnished to any assignee of any claim arising under this contract or to any other person not entitled to receive the same. However, a copy of any part or all of this contract so marked may be furnished, or any information contained therein may be disclosed, to such assignee upon the prior written authorization of the Contracting Officer.

9. MATERIAL AND WORKMANSHIP

(a) Unless otherwise specifically provided in this contract, all equipment, material, and articles incorporated in the work covered by this contract are to be new and of the most suitable grade for the purpose intended. Unless otherwise specifically provided in this contract, reference to any equipment, material, article, or patented process, by trade name, make, or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition, and the Contractor may, at his option, use any equipment, material, article, or process, which, in the judgment of the Contracting Officer, is equal to that named. The Contractor shall furnish to the Contracting Officer for his approval the name of the manufacturer, the model number

and other identifying data and information respecting the performance, capacity, nature, and rating of the machinery and mechanical and other equipment which the Contractor contemplates incorporating in the work. When required by this contract or when called for by the Contracting Officer, the Contractor shall furnish the Contracting Officer for approval full information concerning the material or articles which he contemplates incorporating in the work. When so directed, samples shall be submitted for approval at the Contractor's expense, with all shipping charges prepaid. Machinery, equipment, material, and articles installed or used without required approval shall be at the risk of subsequent rejection.

(b) All work under this contract shall be performed in a skillful and workmanlike manner. The Contracting Officer may, in writing, require the Contractor to remove from the work any employee the Contracting Officer deems incompetent, careless or otherwise objectionable.

10. INSPECTION AND ACCEPTANCE

(a) All work (which term includes but is not restricted to materials, workmanship, and manufacture and fabrication of components) shall be subject to inspection and test by the Government at all reasonable times and at all places prior to acceptance. Any such inspection and test is for the sole benefit of the Government and shall not relieve the Contractor of the responsibility of providing quality control measures to assure that the work strictly complies with the contract requirements. No inspection or test by the Government shall be construed as constituting or implying acceptance. Inspection or test shall not relieve the Contractor of responsibility for damage to or loss of the material prior to acceptance, nor in any way affect the continuing rights of the Government after acceptance of the completed work under the terms of paragraph (f) of this clause, except as hereinabove provided.

(b) The Contractor shall, without charge, replace any material or correct any workmanship found by the Government not to conform to the contract requirements, unless in the public interest the Government consents to accept such material or workmanship with an appropriate adjustment in contract price. The Contractor shall promptly segregate and remove rejected material from the premises.

(c) If the Contractor does not promptly replace rejected material or correct rejected workmanship, the Government (1) may, by contract or otherwise, replace such material or correct such workmanship and charge the cost thereof to the Contractor, or (2) may terminate the Contractor's right to proceed in accordance with the clause of this contract entitled "Termination for Default—Damages for Delay—Time Extensions."

(d) The Contractor shall furnish promptly, without additional charge, all facilities, labor, and material reasonably needed for performing such safe and convenient inspection and test as may be required by the Contracting Officer. All inspection and test by the Government shall be performed in such manner as not unnecessarily to delay the work. Special, full size, and performance tests shall be performed as described in this contract. The Government reserves the right to charge to the Contractor any additional cost of inspection or test when material or workmanship is not ready at the time specified by the Contractor for inspection or test or when reinspection or retest is necessitated by prior rejection.

(e) Should it be considered necessary or advisable by the Government at any time before acceptance of the entire work to make an examination of work already completed, by removing or tearing out same, the Contractor shall, on request, promptly furnish all necessary facilities, labor, and material. If such work is found to be defective or nonconforming in any material respect, due to the fault of the Contractor or his subcontractors, he shall defray all the expenses of such examination and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the contract, an equitable adjustment shall be made in the contract price to compensate the Contractor for the additional services involved in such examination and reconstruction and, if completion of the work has been delayed thereby, he shall, in addition, be granted a suitable extension of time.

(f) Unless otherwise provided in this contract, acceptance by the Government shall be made as promptly as practicable after completion and inspection of all work required by this contract, or that portion of the work that the Contracting Officer determines can be accepted separately. Acceptance shall be final and conclusive except as regards latent defects, fraud, or such gross mistakes as may amount to fraud, or as regards the Government's rights under any warranty or guarantee.

11. SUPERINTENDENCE BY CONTRACTOR

The Contractor, at all times during performance and until the work is completed and accepted, shall give his personal superintendence to the work or have on the work a competent superintendent, satisfactory to the Contracting Officer and with authority to act for the Contractor.

12. PERMITS AND RESPONSIBILITIES

The Contractor shall, without additional expense to the Government, be responsible for obtaining any necessary licenses and permits, and for complying with any applicable Federal, State, and municipal laws, codes, and regulations, in connection with the prosecution of the work. He shall be similarly responsible for all damages to persons or property that occur as a result of his fault or negligence. He shall take proper safety and health precautions to protect the work, the workers, the public, and the property of others. He shall also be responsible for all materials delivered and work performed until completion and acceptance of the entire construction work, except for any completed unit of construction thereof which theretofore may have been accepted.

13. CONDITIONS AFFECTING THE WORK

The Contractor shall be responsible for having taken steps reasonably necessary to ascertain the nature and location of the work, and the general and local conditions which can affect the work or the cost thereof. Any failure by the Contractor to do so will not relieve him from responsibility for successfully performing the work without additional expense to the Government. The Government assumes no responsibility for any understanding or representations concerning conditions made by any of its officers or agents prior to the execution of this contract, unless such understanding or representations by the Government are expressly stated in the contract.

14. OTHER CONTRACTS

The Government may undertake or award other contracts for additional work, and the Contractor shall fully cooperate with such other contractors and Government employees and carefully fit his own work to such additional work as may be directed by the Contracting Officer. The Contractor shall not commit or permit any act which will interfere with the performance of work by any other contractor or by Government employees.

15. SHOP DRAWINGS

(a) The term "shop drawings" includes drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, and similar materials furnished by the Contractor to explain in detail specific portions of the work required by the contract.

(b) If this contract requires shop drawings, the Contractor shall coordinate all such drawings, and review them for accuracy, completeness, and compliance with contract requirements and shall indicate his approval thereon as evidence of such coordination and review. Shop drawings submitted to the Contracting Officer without evidence of the Contractor's approval may be returned for resubmission. The Contracting Officer will indicate his approval or disapproval of the shop drawings and if not approved as submitted shall indicate his reasons therefor. Any work done prior to such approval shall be at the Contractor's risk. Approval by the Contracting Officer shall not relieve the Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this contract, except with respect to variations described and approved in accordance with (c) below.

(c) If shop drawings show variations from the contract requirements, the Contractor shall describe such variations in writing, separate from the drawings, at the time of submission. If the Contracting Officer approves any such variation(s), he shall issue an appropriate contract modification, except that, if the variation is minor and does not involve a change in price or in time of performance, a modification need not be issued.

16. USE AND POSSESSION PRIOR TO COMPLETION

The Government shall have the right to take possession of or use any completed or partially completed part of the work. Prior to such possession or use, the Contracting Officer shall furnish the Contractor an itemized list of work remaining to be performed or corrected on such portions of the project as are to be possessed or used by the Government, provided that failure to list any item of work shall not relieve the Contractor of responsibility for compliance with the terms of the

contract. Such possession or use shall not be deemed an acceptance of any work under the contract. While the Government has such possession or use, the Contractor, notwithstanding the provisions of the clause of this contract entitled "Permits and Responsibilities," shall be relieved of the responsibility for the loss or damage to the work resulting from the Government's possession or use. If such prior possession or use by the Government delays the progress of the work or causes additional expense to the Contractor, an equitable adjustment in the contract price or the time of completion will be made and the contract shall be modified in writing accordingly.

17. SUSPENSION OF WORK

(a) The Contracting Officer may order the Contractor in writing to suspend, delay, or interrupt all or any part of the work for such period of time as he may determine to be appropriate for the convenience of the Government.

(b) If the performance of all or any part of the work is, for an unreasonable period of time, suspended, delayed, or interrupted by an act of the Contracting Officer in the administration of this contract, or by his failure to act within the time specified in this contract (or if no time is specified, within a reasonable time), an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) necessarily caused by such unreasonable suspension, delay, or interruption and the contract modified in writing accordingly. However, no adjustment shall be made under this clause for any suspension, delay, or interruption to the extent (1) that performance would have been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the Contractor or (2) for which an equitable adjustment is provided for or excluded under any other provision of this contract.

(c) No claim under this clause shall be allowed (1) for any costs incurred more than 20 days before the Contractor shall have notified the Contracting Officer in writing of the act or failure to act involved (but this requirement shall not apply as to a claim resulting from a suspension order), and (2) unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of such suspension, delay, or interruption, but not later than the date of final payment under the contract.

18. TERMINATION FOR CONVENIENCE OF THE GOVERNMENT

If not physically incorporated elsewhere, the clause in Section 1-8.703 of the Federal Procurement Regulations, or paragraph 7-602.29(a) of the Armed Services Procurement Regulation, as applicable, in effect on the date of this contract is hereby incorporated by reference as fully as if set forth at length herein.

19. PAYMENT OF INTEREST ON CONTRACTORS' CLAIMS

(a) If an appeal is filed by the Contractor from a final decision of the Contracting Officer under the Disputes clause of this contract, denying a claim arising under the contract, simple interest on the amount of the claim finally determined owed by the Government shall be payable to the Contractor. Such interest shall be at the rate determined by the Secretary of the Treasury pursuant to Public Law 92-41, 85 Stat. 97, from the date the Contractor furnishes to the Contracting Officer his written appeal under the Disputes clause of this contract, to the date of (1) a final judgment by a court of competent jurisdiction, or (2) mailing to the Contractor of a supplemental agreement for execution either confirming completed negotiations between the parties or carrying out a decision of a board of contract appeals.

(b) Notwithstanding (a) above, (1) interest shall be applied only from the date payment was due, if such date is later than the filing of appeal; and (2) interest shall not be paid for any period of time that the Contracting Officer determines the Contractor has unduly delayed in pursuing his remedies before a board of contract appeals or a court of competent jurisdiction.

20. PRICING OF ADJUSTMENTS

When costs are a factor in any determination of a contract price adjustment pursuant to the Changes clause or any other provision of this contract, such costs shall be in accordance with the contract cost principles and procedures in Part 1-15 of the Federal Procurement Regulations, (41 CFR 1-15) or Section XV of the Armed Services Procurement Regulation, as applicable, which are in effect on the date of this contract.

21. PATENT INDEMNITY

Except as otherwise provided, the Contractor agrees to indemnify the Government and its officers, agents, and em-

ployees against liability, including costs and expenses, for infringement upon any Letters Patent of the United States (except Letters Patent issued upon an application which is now or may hereafter be, for reasons of national security, ordered by the Government to be kept secret or otherwise withheld from issue) arising out of the performance of this contract or out of the use or disposal by or for the account of the Government of supplies furnished or construction work performed hereunder.

22. ADDITIONAL BOND SECURITY

If any surety upon any bond furnished in connection with this contract becomes unacceptable to the Government, or if any such surety fails to furnish reports as to his financial condition from time to time as requested by the Government, or if the contract price is increased to such an extent that the penal sum of any bond becomes inadequate in the opinion of the Contracting Officer, the Contractor shall promptly furnish such additional security as may be required from time to time to protect the interests of the Government and of persons supplying labor or materials in the prosecution of the work contemplated by this contract.

23. EXAMINATION OF RECORDS BY COMPTROLLER GENERAL

(a) This clause is applicable if the amount of this contract exceeds \$10,000 and was entered into by means of negotiation, including small business restricted advertising, but is not applicable if this contract was entered into by means of formal advertising.

(b) The contractor agrees that the Comptroller General of the United States or any of his duly authorized representatives shall, until the expiration of 3 years after final payment under this contract or such lesser time specified in either Appendix M of the Armed Services Procurement Regulation or the Federal Procurement Regulations Part 1-20, as appropriate, have access to and the right to examine any directly pertinent books, documents, papers, and records of the contractor involving transactions related to this contract.

(c) The Contractor further agrees to include in all his subcontracts hereunder a provision to the effect that the subcontractor agrees that the Comptroller General of the United States or any of his duly authorized representatives shall, until the expiration of 3 years after final payment under the subcontract or such lesser time specified in either Appendix M of the Armed Services Procurement Regulation or the Federal Procurement Regulations Part 1-20, as appropriate, have access to and the right to examine any directly pertinent books, documents, papers, and records of such subcontractor, involving transactions related to the subcontract. The term "subcontract" as used in this clause excludes (1) purchase orders not exceeding \$10,000 and (2) subcontracts or purchase orders for public utility services at rates established for uniform applicability to the general public.

(d) The periods of access and examination described in (b) and (c), above, for records which relate to (1) appeals under the "Disputes" clause of this contract, (2) litigation or the settlement of claims arising out of the performance of this contract, or (3) costs and expenses of this contract as to which exception has been taken by the Comptroller General or any of his duly authorized representatives, shall continue until such appeals, litigation, claims, or exceptions have been disposed of.

24. BUY AMERICAN

(a) *Agreement.* In accordance with the Buy American Act (41 U.S.C. 10a-10d), and Executive Order 10582, December 17, 1954 (3 CFR, 1954-58 Comp., p. 230), as amended by Executive Order 11051, September 27, 1962 (3 CFR, 1959-63 Comp., p. 635), the Contractor agrees that only domestic construction material will be used (by the Contractor, subcontractors, materialmen, and suppliers) in the performance of this contract, except for nondomestic material listed in the contract.

(b) *Domestic construction material.* "Construction material" means any article, material, or supply brought to the construction site for incorporation in the building or work. A manufactured construction material is a "domestic construction material" if it has been mined or produced in the United States. A manufactured construction material is a "domestic construction material" if it has been manufactured in the United States and if the cost of its components which have been mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. "Component" means any article, material, or supply directly incorporated in a construction material.

(c) *Domestic component.* A component shall be considered to have been "mined, produced, or manufactured in the

United States" (regardless of its source in fact) if the article, material, or supply in which it is incorporated was manufactured in the United States and the component is of a class or kind determined by the Government to be not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities and of a satisfactory quality.

25. EQUAL OPPORTUNITY

(The following clause is applicable unless this contract is exempt under the rules, regulations, and relevant orders of the Secretary of Labor (41 CFR, ch. 60).)

During the performance of this contract, the Contractor agrees as follows:

(a) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Contracting Officer setting forth the provisions of this Equal Opportunity clause.

(b) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(c) The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency Contracting Officer, advising the labor union or workers' representative of the contractor's commitments under this Equal Opportunity clause, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(d) The Contractor will comply with all provisions of Executive Order No. 11246 of September 24, 1965, as amended by Executive Order No. 11375 of October 13, 1967, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(e) The Contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, as amended by Executive Order No. 11375 of October 13, 1967, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(f) In the event of the Contractor's noncompliance with the Equal Opportunity clause of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended, in whole or in part, and the Contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965, as amended by Executive Order No. 11375 of October 13, 1967, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, as amended by Executive Order No. 11375 of October 13, 1967, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(g) The Contractor will include the provisions of paragraphs (a) through (g) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246 of September 24, 1965, as amended by Executive Order No. 11375 of October 13, 1967, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: *Provided, however*, that in the event the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

26. COVENANT AGAINST CONTINGENT FEES

The Contractor warrants that no person or selling agency has been employed or retained to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Contractor for the purpose of securing business. For breach or violation of this warranty the Government shall have the right to annul this contract without liability or in its discretion to deduct from the contract price or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee.

27. OFFICIALS NOT TO BENEFIT

No member of or delegate to Congress or resident Commissioner shall be admitted to any share or part of this contract, or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

28. CONVICT LABOR

In connection with the performance of work under this contract, the Contractor agrees not to employ any person undergoing sentence of imprisonment at hard labor except as provided by Public Law 89-176, September 10, 1965 (18 U.S.C. 4082(c)(2)) and Executive Order 11755, December 29, 1973.

29. UTILIZATION OF SMALL BUSINESS CONCERNS

(a) It is the policy of the Government as declared by the Congress that a fair proportion of the purchases and contracts for supplies and services for the Government be placed with small business concerns.

(b) The Contractor agrees to accomplish the maximum amount of subcontracting to small business concerns that the Contractor finds to be consistent with the efficient performance of this contract.

30. UTILIZATION OF MINORITY BUSINESS ENTERPRISES

(a) It is the policy of the Government that minority business enterprises shall have the maximum practicable opportunity to participate in the performance of Government contracts.

(b) The Contractor agrees to use his best efforts to carry out this policy in the award of his subcontracts to the fullest extent consistent with the efficient performance of this contract. As used in this contract, the term "minority business enterprise" means a business, at least 50 percent of which is owned by minority group members or, in case of publicly-owned businesses, at least 51 percent of the stock of which is owned by minority group members. For the purposes of this definition, minority group members are Negroes, Spanish-speaking American persons, American-Orientals, American-Indians, American-Eskimos, and American-Aleuts. Contractors may rely on written representations by subcontractors regarding their status as minority business enterprises in lieu of an independent investigation.

31. FEDERAL, STATE, AND LOCAL TAXES

(a) Except as may be otherwise provided in this contract, the contract price includes all applicable Federal, State and local taxes and duties.

(b) Nevertheless, with respect to any Federal excise tax or duty on the transactions or property covered by this contract, if a statute, court decision, written ruling, or regulation takes effect after the contract date, and—

(1) Results in the Contractor being required to pay or bear the burden of any such Federal excise tax or duty or increase in the rate thereof which would not otherwise have been payable on such transactions or property, the contract price shall be increased by the amount of such tax or duty or rate increase: *Provided*, That the Contractor if requested by the Contracting Officer, warrants in writing that no amount for such newly imposed Federal excise tax or duty or rate increase was included in the contract price as a contingency reserve or otherwise; or

(2) Results in the Contractor not being required to pay or bear the burden of, or in his obtaining a refund or drawback of, any such Federal excise tax or duty which would otherwise have been payable on such transactions or property or which was the basis of an increase in the contract price, the contract price shall be decreased by the amount of the relief, refund, or drawback, or that amount shall be paid to the Government, as directed by the Contracting Officer. The contract price shall be similarly decreased if the Contractor, through his fault or negligence or his failure to follow instructions of the Contract-

ing Officer, is required to pay or bear the burden of, or does not obtain a refund or drawback of, any such Federal excise tax or duty.

(c) No adjustment pursuant to paragraph b above will be made under this contract unless the aggregate amount thereof is or may reasonably be expected to be over \$100.00.

(d) As used in paragraph b above, the term "contract date" means the date set for the bid opening, or if this is a negotiated contract, the date of this contract. As to additional supplies or services procured by modification to this contract, the term "contract date" means the date of such modification.

(e) Unless there does not exist any reasonable basis to sustain an exemption, the Government, upon request of the

Contractor, without further liability, agrees, except as otherwise provided in this contract, to furnish evidence appropriate to establish exemption from any tax which the Contractor warrants in writing was excluded from the contract price. In addition, the Contracting Officer may furnish evidence to establish exemption from any tax that may, pursuant to this Clause, give rise to either an increase or decrease in the contract price. Except as otherwise provided in this contract, evidence appropriate to establish exemption from duties will be furnished only at the discretion of the Contracting Officer.

(f) The Contractor shall promptly notify the Contracting Officer of matters which will result in either an increase or decrease in the contract price, and shall take action with respect thereto as directed by the Contracting Officer.

32. SUBCONTRACTS

Subsequent to the award the Contractor shall, upon request of the Contracting Officer, submit a complete list of subcontractors who will be engaged by him in the execution of the work. The Contracting Officer shall be notified of any changes or additions in the list of subcontractors.

The settlement of any disputes between various subcontractors or between the Contractor and his subcontractors shall remain the sole responsibility of the Contractor. Nothing contained in the contract documents shall create any contractual relationship between any subcontractor and the Government.

33. FEDERAL SPECIFICATIONS, STANDARDS AND GOVERNMENT FORMS

Federal specifications and also standards of associations, societies and laboratories referred to in these specifications shall become a part of this Contract and are incorporated herein by reference. The latest edition or amendment or supplement thereto in effect 30 days before date of invitation shall apply.

"Federal Specifications," government forms, "Commercial Standards" and "Simplified Practice Recommendations" may be obtained from the Superintendent of Documents, United States Government Printing Office, Washington, D.C. 20402. "Federal Specifications" also may be obtained from any Business Service Center of General Services Administration. Directions for purchase and the price thereof are obtainable from the same sources.

Standards of associations, societies and laboratories referred to in the specifications may be obtained directly from such organizations.

The Contractor shall have a copy of each referenced standard available for his use.

34. CONDUCT OF OPERATIONS

At all times the Contractor shall conduct his organization in conformance with the rules and regulations promulgated by the Secretary of the Interior for the National Park Service, and with such appropriate regulations as the Superintendent may prescribe.

Work on Saturdays, Sundays, Federal holidays or at night may be performed only with the prior consent of the Contracting Officer.

No signs or advertisements (except those specified herein) shall be displayed on the construction site or within the park except with approval of the Contracting Officer.

35. RELEASE OF CLAIMS

After completion of work, and prior to final payment, the Contractor shall furnish to the Contracting Officer, a release of claims against the United States relating to the Contract, other than claims specifically excepted from the operation of the release.

36. GUARANTY

Except where a longer period is established elsewhere in these specifications all work including labor, materials and equipment performed under this Contract shall be guaranteed for a period of one year from date of acceptance of the work by the Government. During the term of the guaranty the Contractor, when notified by the Contracting Officer, shall promptly replace or put in satisfactory condition in every particular any deficiency in the guaranteed work, and shall make good all damage to the structures and grounds, and to any other material, equipment and property which are disturbed in fulfilling the requirements of the guaranty or which have been damaged because of the deficient work.

In the event of failure by the Contractor to comply with these provisions within ten days following date of notification, the Government may proceed to have such defects repaired and the Contractor and his surety shall be liable for costs incurred in connection therewith.

37. DISABLED VETERANS AND VETERANS OF THE VIETNAM ERA

(a) The contractor will not discriminate against any employee or applicant for employment because he or she is a disabled veteran or veteran of the Vietnam era in regard to any position for which the employee or applicant for employment is qualified. The contractor agrees to take affirmative action to employ, advance in employment, and otherwise treat qualified disabled veterans and veterans of the Vietnam era without discrimination based upon their disability or veterans status in all employment practices such as the following: employment upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

(b) The contractor agrees that all suitable employment openings of the contractor which exist at the time of the execution of this contract and those which occur during the performance of this contract, including those not generated by this contract and including those occurring at an establishment of the contractor other than the one wherein the contract is being performed but excluding those of independently operated corporate affiliates, shall be listed at an appropriate local office of the State employment service system wherein the opening occurs. The contractor further agrees to provide such reports to such local office regarding employment openings and hires as may be required.

State and local government agencies holding Federal contracts of \$10,000 or more shall also list all their suitable openings with the appropriate office of the State employment service, but are not required to provide those reports set forth in paragraphs (d) and (e).

(c) Listing of employment openings with the employment service system pursuant to this clause shall be made at least concurrently with the use of any other recruitment source or effort and shall involve the normal obligations which attach to the placing of a bona fide job order, including the acceptance of referrals of veterans and nonveterans. The listing of employment openings does not require the hiring of any particular job applicant or from any particular group of job applicants, and nothing herein is intended to relieve the contractor from any requirements in

Executive orders or regulations regarding nondiscrimination in employment.

(d) The reports required by paragraph (b) of this clause shall include, but not be limited to, periodic reports which shall be filed at least quarterly with the appropriate local office or, where the contractor has more than one hiring location in a State, with the central office of that State employment service. Such reports shall indicate for each hiring location (1) the number of individuals hired during the reporting period, (2) the number of nondisabled veterans of the Vietnam era hired, (3) the number of disabled veterans of the Vietnam era hired, and (4) the total number of disabled veterans hired. The reports should include covered veterans hired for on-the-job training under 38 U.S.C. 1787. The contractor shall submit a report within 30 days after the end of each reporting period wherein any performance is made on this contract identifying data for each hiring location. The contractor shall maintain at each hiring location copies of the reports submitted until the expiration of one year after final payment under the contract, during which time these reports and related documentation shall be made available, upon request, for examination by any authorized representatives of the contracting officer or of the Secretary of Labor. Documentation would include personnel records respecting job openings, recruitment, and placement.

(e) Whenever the contractor becomes contractually bound to the listing provisions of this clause, it shall advise the employment service system in each State where it has establishments of the name and location of each hiring location in the State. As long as the contractor is contractually bound to these provisions and has so advised the State system, there is no need to advise the State system of subsequent contracts. The contractor may advise the State system when it is no longer bound by this contract clause.

(f) This clause does not apply to the listing of employment openings which occur and are filled outside the 50 States, the District of Columbia, Puerto Rico, Guam, and the Virgin Islands.

(g) The provisions of paragraphs (b), (c), (d), and (e) of this clause do not apply to openings which the contractor proposes to fill from within his own organization or to fill pursuant to a customary and traditional employer-union hiring arrangement. This exclusion does not apply to a particular opening once an employer decides to consider applicants outside of his own organization or employer-union arrangement for that opening.

(h) As used in this clause: (1) "All suitable employment openings" includes, but is not limited to, openings which occur in the following job categories: production and non-production; plant and office; laborers and mechanics; supervisory and nonsupervisory; technical; and executive, administrative, and professional openings that are compensated on a salary basis of less than \$25,000 per year. This term includes full-time employment, temporary employment of more than 3 days' duration, and part-time employment. It does not include openings which the contractor proposes to fill from within his own organization or to fill pursuant to a customary and traditional employer-union hiring arrangement nor openings in an educational institution which are restricted to students of that institution. Under the most

compelling circumstances an employment opening may not be suitable for listing, including such situations where the needs of the Government cannot reasonably be otherwise supplied, where listing would be contrary to national security, or where the requirement of listing would otherwise not be for the best interest of the Government.

(2) "Appropriate office of the State employment service system" means the local office of the Federal/State national system of public employment offices with assigned responsibility for serving the area where the employment opening is to be filled, including the District of Columbia, Guam, Puerto Rico, and the Virgin Islands.

(3) "Openings which the contractor proposes to fill from within his own organization" means employment openings for which no consideration will be given to persons outside the contractor's organization (including any affiliates, subsidiaries, and the parent companies) and includes any openings which the contractor proposes to fill from regularly established "recall" lists.

(4) "Openings which the contractor proposes to fill pursuant to a customary and traditional employer-union hiring arrangement" means employment openings which the contractor proposes to fill from union halls, which is part of the customary and traditional hiring relationship which exists between the contractor and representatives of his employees.

(i) The contractor agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Act.

(j) In the event of the contractor's noncompliance with the requirements of this clause, actions for noncompliance may be taken in accordance with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Act.

(k) The contractor agrees to post in conspicuous places available to employees and applicants for employment notices in a form to be prescribed by the Director, provided by or through the contracting officer. Such notice shall state the contractor's obligation under the law to take affirmative action to employ and advance in employment qualified disabled veterans and veterans of the Vietnam era for employment, and the rights of applicants and employees.

(l) The contractor will notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding that the contractor is bound by terms of the Vietnam Era Veteran's Readjustment Assistance Act and is committed to take affirmative action to employ and advance in employment qualified disabled veterans and veterans of the Vietnam era.

(m) The contractor will include the provisions of this clause in every subcontract or purchase order of \$10,000 or more unless exempted by rules, regulations, or orders of the Secretary issued pursuant to the Act, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the Director of the Office of Federal Contract Compliance Programs may direct to enforce such provisions, including action for noncompliance.

38. INSURANCE

The Contractor shall maintain compensation insurance, for employees engaged in the work, complying with the workmen's compensation laws of the State in which the work is to be performed and shall maintain liability insurance protecting him from claims because of bodily injury (including death) and property damage arising under this Contract.

39. SAFETY AND HEALTH

(a) The Contractor shall comply with all applicable occupational safety and health standards relating to construction prescribed in 29 CFR Part 1910/1926.

(b) If the Contractor fails or refuses to promptly comply with the requirements of this clause, the Contracting Officer, or his authorized representative, shall notify the Contractor of any noncompliance and indicate to the Contractor the action to be taken. The Contractor shall, after receipt of such notice, immediately correct the conditions to which attention has been directed. Such notice, either oral or written, when served on the Contractor or his authorized representative(s) at the site of the work, shall be deemed sufficient.

(c) In the event the Contractor fails or refuses to promptly comply with the compliance directive issued under paragraph (b) above, the Contracting Officer or his authorized representative may issue an order to suspend all or any part of the work. When satisfactory corrective action is taken, an order to resume work will be issued. The Contractor shall not be entitled to any extension of time, nor to any claim for damage or to excess costs by reason of either the directive or the suspension order. Failure of the Contracting Officer or his authorized representative to order discontinuance of any or all of the Contractor's operations shall not relieve the Contractor of his responsibility for the safety of personnel and property.

(d) The Contractor shall maintain an accurate record of, and shall report to the Contracting Officer in the manner prescribed by the Contracting Officer, all cases of death, occupational diseases, traumatic injury to employees or the public involved, and property damage by accident in excess of \$100 incident to performance of work under this contract.

(e) The rights and remedies of the Government provided in this clause are in addition to any other rights and remedies provided by law or under this contract.

(f) In event there is a conflict between the requirements of this clause and any requirement of the U. S. Department of Labor in its regulations set forth under 29 CFR Part 1926, the more stringent requirement will prevail.

(g) The occupational safety and health regulations for construction referenced under this clause may be obtained from any regional or area office of the Occupational Safety and Health Administration of the Department of Labor.

40. SURETY BOND ASSISTANCE

As provided in 13 CFR Part 115, the Small Business Administration may, under certain circumstances, provide assistance to small businesses on surety bonds required hereunder.

Further information may be obtained from the Contracting Officer or the nearest office of the Small Business Administration.

41. SEASONAL SHUTDOWN

It is recognized that seasonal climatic conditions regularly occur in some of the National Park Service areas that restrict and in some cases prohibit normal construction activities. The actual timing of a seasonal shutdown will be determined by mutual agreement between the Contractor and the Contracting Officer. The Contractor shall give the Contracting Officer at least two weeks notice prior to the anticipated resumption of work. The actual date that work is resumed is subject to the approval of the Contracting Officer. The amount of time during a seasonal shutdown is taken into consideration when the completion time as stated in the Contract is determined. Therefore, the contract time will not be extended due to seasonal shutdowns.

42. TEMPORARY STOP ORDER

The Contracting Officer shall have the right to stop the work, wholly or in part, for such period as he may deem in the best interest of the Government because of weather or other conditions which are considered unsuitable to the satisfactory prosecution of the work. The issuance of a temporary stop order will not be the basis for a time extension. However, this clause does not alter in any way the Contractor's entitlement to time extensions under Clause 5 of the General Provisions.

43. EMPLOYMENT OF THE HANDICAPPED

(a) The contractor will not discriminate against any employee or applicant for employment because of physical or mental handicap in regard to any position for which the employee or applicant for employment is qualified. The contractor agrees to take affirmative action to employ, advance in employment and otherwise treat qualified handicapped individuals without discrimination based upon their physical or mental handicap in all employment practices such as the following: employment, upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

(b) The contractor agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Rehabilitation Act of 1973, as amended.

(c) In the event of the contractor's noncompliance with the requirements of this clause, actions for noncompliance may be taken in accordance with the rules, regulations and relevant orders of the Secretary of Labor issued pursuant to the Act.

(d) The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices in a form to be prescribed by the Director, Office of Federal Contract Compliance Programs, Department of Labor, provided by or through the contracting officer. Such notices shall state the contractor's obligation under the law to take affirmative action to employ and advance in employment qualified handicapped employees and applicants for employment, and the rights of applicants and employees.

(e) The contractor will notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the contractor is bound by the terms of section 503 of the Act and is committed to take affirmative action to employ and advance in employment physically and mentally handicapped individuals.

(f) The contractor will include the provisions of this clause in every subcontract or purchase order of \$2,500 or more unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 503 of the Act, so that such provisions will be binding upon such subcontractor or vendor. The contractor will take such action with respect to any subcontractor or purchase order as the Director, Office of Federal Contract Compliance Programs, may direct to enforce such provisions, including action for noncompliance.

44. STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)

1. As used in these specifications:

a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;

b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;

c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

d. "Minority" includes:

(i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);

(ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);

(iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and

(iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on

all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site

supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.

d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.

f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written

notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's workforce.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce

participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized.).

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

11. The Contractor shall not enter into any subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program.

45. CULTURAL RESOURCES SURVEY

(a) Notify Contracting Officer of the location of off-site borrow pits no later than the preconstruction conference so that he may determine if a Cultural Resources Survey must be undertaken. A Cultural Resources Survey is not required for borrow material from stockpiled sources. However, for borrow material from undisturbed sources, Contracting Officer will arrange for a survey to be conducted within 10 calendar days following notification of the pit location before disturbance of the site. Should the survey reveal a finding of Cultural Resources of the National Register quality, Contractor will be so advised in writing within 20 calendar days after disclosure of the pit location, and shall promptly locate another source of the borrow.

(b) Obtain permission, in writing, from the landowners for Government employees to take samples for Cultural Resources evaluation. No claim for time extension or additional compensation will be allowed for complying with the provisions of this clause.

46. ARCHEOLOGICAL FINDINGS

Petroglyphs, artifacts, burial grounds or remains, structural features, ceremonial, domestic, and archeological objects of any nature, historic or prehistoric, found within the construction area, are the property of and will be removed only by the Government. Should Contractor's operations uncover or his employees find any archeological remains, Contractor shall suspend operations at the site of discovery; notify Contracting Officer immediately of the findings; and continue operations in other areas. Included with the notification shall be a brief statement of the location and details of the findings. Should the temporary suspension of work at the site result in delays, or the discovery site require archeological studies resulting in delays or additional work for Contractor, he will be compensated by an equitable adjustment under the General Provisions of the Contract.

47. UTILIZATION OF WOMEN-OWNED BUSINESS CONCERNS

(a) It is the policy of the United States Government that women-owned businesses shall have the maximum practicable opportunity to participate in the performance of contracts awarded by any Federal agency.

(b) The Contractor agrees to use his best efforts to carry out this policy in the award of subcontracts to the fullest extent consistent with the efficient performance of this contract. As used in this contract, a "woman-owned business" concern means a business that is at least 51 percent owned by a woman or women who also control and operate it. "Control" in this context means exercising the power to make policy decisions. "Operate" in this context means being actively involved in the day-to-day management. "Women" mean all women business owners.

SUPPLEMENTARY PROVISIONS

SP-1 The Supplementary Provisions contain changes and additions to the General Provisions governing work under this Contract. Where any part of the General Provisions is modified herein, the unaltered provisions shall remain in effect. The following clauses are amended as indicated.

(a) Clause 1. Add the following:

(c) The term "work" as used herein includes materials, labor, tools, equipment, supplies, permits, licenses and insurance required in or incidental to the construction and completion of all or any part of the work described or indicated.

(d) The phrases or terms "as directed", "as permitted", "approval", "acceptance", etc., as used herein mean the direction, permission, approval or acceptance of the Contracting Officer unless specifically stated otherwise.

(e) The word "provide" as used herein means "furnish and install".

(f) Contract documents consist of the Construction Contract, addenda, Contractor's bid (including Contract Bid Schedule or Bid Form and required documentation submitted prior to the Notice of Award), performance and payment bonds, the General Provisions, the Supplementary Provisions, the Labor Standards Provisions, the specifications, the drawings, and all modifications issued after the execution of the Contract.

(b) Clause 6. Delete in its entirety and substitute the following:

6. DISPUTES

(a) This contract is subject to the Contract Disputes Act of 1978 (Pub. L. 95-563).

(b) Except as provided in the Act, all disputes arising under or relating to this contract shall be resolved in accordance with this clause.

(c) (i) As used herein, "claim" means a written demand or assertion by one of the parties seeking, as a legal right, the payment of money, adjustment or interpretation of contract terms, or other relief, arising under or relating to this contract.

(ii) A voucher, invoice, or request for payment that is not in dispute when submitted is not a claim for the purposes of the Act. However, where such submission is subsequently not acted upon in a reasonable time, or disputed either as to liability or amount, it may be converted to a claim pursuant to the Act.

(iii) A claim by the Contractor shall be made in writing and submitted to the Contracting Officer for decision. A claim by the Government against the contractor shall be subject to a decision by the Contracting Officer.

(d) For contractor claims of more than \$50,000, the contractor shall submit with the claim a certification that the claim is made in good faith; the supporting data are accurate and complete to the best of the contractor's knowledge and belief; and the amount requested accurately reflects the contract adjustment for which the contractor believes the Government is liable. The certification shall be executed by the contractor if an individual. When the contractor is not an individual, the certification shall be executed by a senior company official in charge at the contractor's plant or location involved, or by an officer or general partner of the contractor having overall responsibility for the conduct of the contractor's affairs.

(e) For contractor claims of \$50,000 or less, the Contracting Officer must render a decision within 60 days. For contractor claims in excess of \$50,000, the Contracting Officer must decide the claim within 60 days or notify the contractor of the date when the decision will be made.

(f) The Contracting Officer's decision shall be final unless the contractor appeals or files a suit as provided in the Act.

(g) The authority of the Contracting Officer under the Act does not extend to claims or disputes which by statute or regulation other agencies are expressly authorized to decide.

(h) Interest on the amount found due on a contractor claim shall be paid from the date the claim is received by the Contracting Officer until date of payment.

(i) Except as the parties may otherwise agree, pending final resolution of a claim by the contractor arising under the contract, the contractor shall proceed diligently with the performance of the contract in accordance with the contracting officer's decision.

(c) Clause 7.

Paragraph (b). Add the following:

Payment for materials delivered to this site, but not installed, may be paid for by the Government at the discretion of the Contracting Officer upon proof of ownership by Contractor. Proof of ownership shall be cancelled checks.

Delete paragraph (c) and substitute the following:

(c) In making such progress payments, there shall be retained 10 percent of the estimated amount until final completion and acceptance of the contract work. However, if the Contracting Officer finds that satisfactory progress was achieved during any period for which a progress payment is to be made, he may authorize such payment to be made in full without retention of a percentage. Also, whenever the work is substantially complete, the Contracting Officer shall retain an amount he considers adequate for protection of the Government and, at his discretion, may release to the Contractor all or a portion of any excess amount. Furthermore, on completion and acceptance of each separate building, public work, or other division of the contract, on which the price is stated separately in the contract, payment may be made therefor without retention of a percentage. The Government will process progress payments in such a manner that payment will be made by the 30th day from receipt of a correct invoice.

Change paragraph (e) to (f).

Add new paragraph (e):

(e) If Miller Act (40 U.S.C. 270a-270e) performance or payment bonds are required under this contract, the

Government shall pay to the Contractor the total premiums paid by the contractor to obtain the bonds. This payment shall be paid at one time to the contractor together with the first progress payment otherwise due after the contractor has (1) furnished the bonds (including coinsurance and reinsurance agreements, when applicable), (2) furnished evidence of full payment to the surety company, and (3) submitted a request for such payment. The payment by the Government of the bond premiums to the contractor shall not be made as increments of the individual progress payments and shall not be in addition to the contract price.

(d) Clause 11. Add the following:

Said superintendent or foreman shall be an employee of the Contractor who shall give his personal supervision to the work, including coordinating, directing and expediting of all subcontracted work, until completion of all work under the Contract. All directions given to him shall be considered as having been given to the Contractor and shall be binding on the Contractor.

(e) Clause 15. Delete entire clause. (See Section 01300.)

(f) Clause 19. Delete entire clause.

(g) Clause 28, third line: Delete "at hard labor".

(h) Clause 29. Delete in its entirety.

(i) Clause 30. Delete in its entirety and substitute the following:

30. UTILIZATION OF SMALL BUSINESS CONCERNS AND SMALL BUSINESS CONCERNS OWNED AND CONTROLLED BY SOCIALLY AND ECONOMICALLY DISADVANTAGED INDIVIDUALS

(a) It is the policy of the United States that small business concerns and small business concerns owned and controlled by socially and economically disadvantaged individuals shall have the maximum practicable opportunity to participate in the performance of contracts let by any Federal agency.

(b) The contractor hereby agrees to carry out this policy in the awarding of subcontracts to the fullest extent

consistent with the efficient performance of this contract. The contractor further agrees to cooperate in any studies or surveys as may be conducted by the Small Business Administration or the contracting agency which may be necessary to determine the extent of the contractor's compliance with this clause.

(c) (1) As used in this contract, the term "small business concern" shall mean a small business as defined pursuant to section 3 of the Small Business Act and relevant regulations promulgated pursuant thereto.

(2) The term "small business concern owned and controlled by socially and economically disadvantaged individuals" shall mean a small business concern--

(i) which is at least 51 per centum owned by one or more socially and economically disadvantaged individuals; or in the case of any publicly owned business, at least 51 per centum of the stock of which is owned by one or more socially and economically disadvantaged individuals; and

(ii) whose management and daily business operations are controlled by one or more of such individuals.

The contractor shall presume that socially and economically disadvantaged individuals include Black Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans, and other minorities, or any other individual found to be disadvantaged by the Small Business Administration pursuant to section 8(a) of the Small Business Act.

(d) Contractors acting in good faith may rely on written representations by their subcontractors regarding their status as a small business concern or a small business concern owned and controlled by socially and economically disadvantaged individuals.

SP-2 PERFORMANCE OF WORK BY CONTRACTOR: The Contractor shall perform on the site and with his own organization and forces on his payroll, work equivalent to at least 30 percent of the total amount of construction work at the site. The cost of contractor-furnished material and equipment incorporated in the work shall not be included in computing the total amount of construction work at the site.

SP-3 AUDIT

(a) General. The Contracting Officer or his representatives shall have the audit and inspection rights described in the applicable paragraphs (b), (c) and (d) below.

(b) Examination of costs. If this a cost-reimbursement type, incentive, time and materials, labor hour, or price redeterminable contract, or any combination thereof, the Contractor shall maintain, and the Contracting Officer or his representatives shall have the right to examine books, records, documents, and other evidence and accounting procedures and practices, sufficient to reflect properly all direct and indirect costs of whatever nature claimed to have been incurred and anticipated to be incurred for the performance of this contract. Such right of examination shall include inspection at all reasonable times of the Contractor's plants, or such parts thereof, as may be engaged in the performance of this contract.

(c) Cost or pricing data. If the Contractor submitted cost or pricing data in connection with the pricing of this contract or any change or modification thereto, unless such pricing was based on adequate price competition, established catalog or market prices of commercial items sold in substantial quantities to the general public, or prices set by law or regulation, the Contracting Officer or his representatives who are employees of the United States Government shall have the right to examine all books, records, documents and other data of the Contractor related to the negotiation, pricing or performance of such contract, change or modification, for the purpose of evaluating the accuracy, completeness and currency of the cost or pricing data submitted. Additionally, in the case of pricing any change or modification exceeding \$100,000 to formally advertised contracts, the Comptroller General of the United States or his representatives who are employees of the United States Government shall have such rights. The right of examination shall extend to all documents necessary to permit adequate evaluation of the cost or pricing data submitted, along with the computations and projections used therein.

(d) Availability. The materials described in (b) and (c) above, shall be made available at the Office of the Contractor, at all reasonable times, for inspection, audit or reproduction until the expiration of 3 years from the date of final payment under this contract or such lesser time specified in Part 1-20 of the Federal Procurement Regulations (41 CFR Part 1-20) and for such longer period, if any, as is required by applicable statute, or by other clauses of this contract, or by (1) and (2) below:

(1) If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for a period of 3 years from the date of any resulting final settlement.

(2) Records which relate to appeals under the "Disputes" clause of this contract, or litigation of the settlement of claims arising out of the performance of this contract, shall be made available until such appeals, litigation, or claims have been disposed of.

(e) The Contractor shall insert a clause containing all the provisions of this clause, including this paragraph (e), in all subcontracts hereunder except altered as necessary for proper identification of the contracting parties and the Contracting Officer under the Government prime contract.

SP-4 AIR AND WATER POLLUTION CONTROL

(Applicable only if the contract exceeds \$100,000, or the contracting officer has determined that orders under an indefinite quantity contract in any one year will exceed \$100,000, or a facility to be used has been the subject of a conviction under the Clean Air Act (42 U.S.C. 1857c-8(c)(1)) or the Federal Water Pollution Control Act (33 U.S.C. 1319(c) and is listed by EPA, or the contract is not otherwise exempt.)

(a) The Contractor agrees as follows:

(i) To comply with all the requirements of Section 114 of the Clean Air Act, as amended (42 U.S.C. 1857, et. seq., as amended by Public Law 91-604) and Section 308 of the Federal Water Pollution Control Act (33 U.S.C. 1251, as amended by Public Law 92-500) respectively, relating to inspection, monitoring, entry, reports, and information, as well as other requirements specified in Section 114 and Section 308 of the Air Act and the Water Act, respectively, and all regulations and guidelines issued thereunder before the award of this Contract.

(ii) That no portion of the work required by this Prime Contract will be performed in a facility listed on the environmental Protection Agency list of violating facilities on the date when this Contract was awarded unless and until the EPA eliminates the name of such facility or facilities from such listing.

(iii) To use his best efforts to comply with clean air standards and clean water standards at the facilities in which the Contract is being performed.

(iv) To insert the substance of the provisions of this clause in any nonexempt subcontract, including this paragraph (iv).

(b) The terms used in this clause have the following meanings:

(i) The term "Air Act" means the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Public Law 91-604).

(ii) The term "Water Act" means Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Public Law 92-500).

(iii) The term "Clean Air Standards" means any enforceable rules, regulations, guidelines, standards, limitations, orders, controls, prohibitions, or other requirements which are contained in, issued under, or otherwise adopted pursuant to the Air Act or Executive Order 11738, an applicable implementation plan as described in Section 110(d) of the Clean Air Act (42 U.S.C. 1857c-5(d)), an approved implementation procedure or plan under Section 111(d), respectively, of the Air Act (42 U.S.C. 1857c-6(c) or (d)), or an approved implementation procedure under Section 112(d) of the Air Act (42 U.S.C. 1857c-7(d)).

(iv) The term "Clean Water Standards" means any enforceable limitation, control, condition, prohibition, standard, or other requirement which is promulgated pursuant to the Water Act or contained in a permit issued to a discharger by the Environmental Protection Agency or by a state under an approved program, as authorized by Section 402 of the Water Act (33 U.S.C. 1342), or by a local government to ensure compliance with pretreatment regulations as required by Section 307 of the Water Act (33 U.S.C. 1317).

(v) The term "compliance" means compliance with clean air or water standards. Compliance shall also mean compliance with a schedule or plan ordered or approved by a court of competent jurisdiction, the Environmental Protection Agency or an air or water pollution control agency in accordance with the requirement of the Air Act or Water Act and regulations issued pursuant thereto.

(vi) The term "facility" means any building, plant, installation, structure, mine, vessel or other floating craft, location, or site of operations, owned, leased, or supervised by a contractor, subcontractor, to be utilized in the performance of a contract or subcontract. Where a location or site of operations contains or includes more than one building, plant, installation, or structure, the entire location shall be deemed to be a facility except where the Director, Office of Federal

Activities, Environmental Protection Agency, determines that independent facilities are colocated in one geographical area.

SP-5 PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA - PRICE ADJUSTMENTS

(a) This clause shall become operative only with respect to any modification of this contract which involves aggregate increases and/or decreases in costs plus applicable profits in excess of \$100,000 unless the modification is priced on the basis of adequate price competition, established catalog or market prices of commercial items sold in substantial quantities to the general public, or prices set by law or regulation. The right to price reduction under this clause is limited to defects in data relating to such modification.

(b) If any price, including profit, or fee, negotiated in connection with any price adjustment under this contract was increased by any significant sums because:

(1) The Contractor furnished cost or pricing data which was not accurate, complete and current as certified in the Contractor's Certificate of Current Cost or Pricing Data;

(2) A subcontractor, pursuant to the clause of this contract entitled "Subcontractor Cost or Pricing Data" or "Subcontractor Cost or Pricing Data - Price Adjustments" or any subcontract clause therein required, furnished cost or pricing data which was not accurate, complete and current as certified in the subcontractor's Certificate of Current Cost or Pricing Data;

(3) A subcontractor or prospective subcontractor furnished cost or pricing data which was required to be accurate, complete and current and to be submitted to support a subcontract cost estimate furnished by the Contractor but which was not accurate, complete and current as of the date certified in the Contractor's Certificate of Current Cost or Pricing Data; or

(4) The Contractor or a subcontractor or prospective subcontractor furnished any data, not within (1), (2) or (3) above, which was not accurate, as submitted; the price shall be reduced accordingly and the contract shall be modified in writing as may be necessary to reflect such reduction. However, any reduction in the contract price due to defective subcontract data of a prospective subcontractor, when the subcontract was not subsequently awarded to such subcontractor, will be limited to the amount (plus applicable overhead and profit markup) by which the actual subcontract, or actual cost to the Contractor if there was no subcontract, was less than the prospective subcontract

cost estimate submitted by the Contractor: Provided the actual subcontract price was not affected by defective cost or pricing data.

(NOTE: Since the contract is subject to reduction under this clause by reason of defective cost or pricing data submitted in connection with certain subcontracts, it is expected that the Contractor may wish to include a clause in each such subcontract requiring the subcontractor to appropriately indemnify the Contractor. It is also expected that any subcontractor subject to such indemnification will generally require substantially similar indemnification for defective cost or pricing data required to be submitted by his lower tier subcontractors.)

SP-6 SUBCONTRACTOR COST OR PRICING DATA - PRICE ADJUSTMENTS

(a) Paragraphs (b) and (c) of this clause shall become operative only with respect to any modification made pursuant to one or more provisions of this contract which involve aggregate increases and/or decreases in costs plus applicable profits expected to exceed \$100,000. The requirements of this clause shall be limited to such modifications.

(b) The Contractor shall require subcontractors hereunder to submit cost or pricing data under the following circumstances:

(1) Prior to award of any subcontract the amount of which is expected to exceed \$100,000 when entered into;

(2) Prior to the pricing of any subcontract modification which involves aggregate increases and/or decreases in costs plus applicable profits expected to exceed \$100,000; except where the price is based on adequate price competition, established catalog or market prices of commercial items sold in substantial quantities to the general public, or prices set by law or regulation.

(c) The Contractor shall require subcontractors to certify that to the best of their knowledge and belief the cost or pricing data submitted under (b) above is accurate, complete, and current as of the date of agreement on the negotiated price of the subcontract or subcontract change or modification.

(d) The Contractor shall insert the substance of this clause including this paragraph (d) in each subcontract which exceeds \$100,000.

SP-7 WOMEN-OWNED BUSINESS CONCERNS SUBCONTRACTING PROGRAM (OVER \$500,000 OR 1,000,000 FOR CONSTRUCTION OF ANY PUBLIC FACILITY)

(a) The Contractor agrees to establish and conduct a program which will enable women-owned business concerns to be considered fairly as subcontractors and suppliers under this contract. In this connection, the contractor shall:

(1) Designate a liaison officer who will administer the Contractor's "Women-Owned Business Concerns Program."

(2) Provide adequate and timely consideration of potentialities of known women-owned business concerns in all "make-or-buy" decisions.

(3) Develop a list of qualified bidders that are women-owned businesses and assure that known women-owned business concerns have an equitable opportunity to compete for subcontracts, particularly by making information on forthcoming opportunities available, by arranging solicitations, time for the preparation of bids, quantities, specifications, and delivery schedules so as to facilitate the participation of women-owned business concerns.

(4) Maintain records showing (i) procedures which have been adopted to comply with the policies set forth in this clause, including the establishment of a source list of women-owned business concerns; (ii) awards to women-owned businesses on the source list by minority and non-minority women-owned business concerns; and (iii) specific efforts to identify and award contracts to women-owned business concerns.

(5) Include the "Utilization of Women-Owned Business Concerns" clause in subcontracts which offer substantial subcontracting opportunities.

(6) Cooperate in any studies and surveys of the Contractor's women-owned business concerns procedures and practices that the Contracting Officer may from time-to-time conduct.

(7) Submit periodic reports of subcontracting to women-owned business concerns with respect to the records referred to in subparagraph (4) above, in such form and manner and at such time (not more often than quarterly) as the Contracting Officer may prescribe.

(b) The Contractor further agrees to insert, in any subcontract hereunder which may exceed \$500,000 or \$1,000,000 in

the case of contracts for the construction of any public facility and which offers substantial subcontracting possibilities, provisions which shall conform substantially to the language of this clause, including this paragraph (b), and to notify the Contracting Officer of the names of such subcontractors.

(c) The contractor further agrees to require written certification by its subcontractors that they are bona fide women-owned and controlled business concerns in accordance with the definition of a women-owned business concern as set forth in the Utilization Clause 1(b) above at the time of submission of bids or proposals.

SP-8 TIME FOR COMPLETION: All work shall be completed within 750 calendar days from date of receipt of Notice to Proceed. However, the time for completion of the work will be reduced by one calendar day for each day in excess of 15 calendar days (or any extension thereof) elapsing between the Contractor's receipt of and return of properly executed contract, and performance and payment bonds.

SP-9 LIQUIDATED DAMAGES: In case of failure on the part of the Contractor to complete the work within the time fixed in the Contract or any extension thereof, the Contractor shall pay to the Government as fixed, agreed and liquidated damages, pursuant to the clause of this Contract entitled "Termination for Default-Damages for Delay-Time Extensions," the sum of \$250 per day for each calendar day's delay.

SP-10 CONTRACT DRAWINGS: After contract award, ten full size sets of drawings or one set of reproducibles will be furnished, upon request, free of charge to the successful bidder. The following drawings form a part of and supplement these specifications:

TITLE	NUMBER
Phase II Domestic Water System	101/41,170A (84 sheets)

LABOR STANDARDS PROVISIONS

Applicable to Contracts in Excess of \$2,000

1. DAVIS-BACON ACT (40 U.S.C. 276a-276a-7)

(a) All mechanics and laborers employed or working directly upon the site of the work shall be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by the Copeland Regulations, 29 CFR Part 3), the full amounts due at time of payment computed at wage rates not less than the aggregate of the basic hourly rates and the rates of payments, contributions, or costs for any fringe benefits contained in the wage determination decision of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor or subcontractor and such laborers and mechanics. A copy of such wage determination decision shall be kept posted by the Contractor at the site of the work in a prominent place where it can be easily seen by the workers. The term "mechanics and laborers" shall be deemed to include apprentices and trainees not covered by an approved program as provided by the Apprentices and Trainees clause of this contract.

(b) The Contractor may discharge his obligation under this clause to workers in any classification for which the wage determination decision contains:

(1) Only a basic hourly rate of pay, by making payment at not less than such basic hourly rate, except as otherwise provided in the Copeland Regulations (29 CFR Part 3); or

(2) Both a basic hourly rate of pay and fringe benefits payments, by making payment in cash, by irrevocably making contributions pursuant to a fund, plan, or program for, and/or by assuming an enforceable commitment to bear the cost of, bona fide fringe benefits contemplated by the Davis-Bacon Act, or by any combination thereof. Contributions made, or costs assumed, on other than a weekly basis shall be considered as having been constructively made or assumed during a weekly period to the extent that they apply to such period. Where a fringe benefit is expressed in a wage determination in any manner other than as an hourly rate and the Contractor pays a cash equivalent or provides an alternative fringe benefit, he shall furnish information with his payrolls showing how he determined that the cost incurred to make the cash payment or to provide the alternative fringe benefit is equal to the cost of the wage determination fringe benefit. In any case where the Contractor provides a fringe benefit different from any contained in the wage determination, he shall similarly show how he arrived at the hourly rate shown therefor. In the event of disagreement between or among the interested parties as to an equivalent of any fringe benefit, the Contracting Officer shall submit the question, together with his recommendation, to the Secretary of Labor for final determination.

(c) The assumption of an enforceable commitment to bear the cost of fringe benefits, or the provision of any fringe benefits not expressly listed in section 1(b)(2) of the Davis-Bacon Act or in the wage determination decision forming a part of the contract, may be considered as payment of wages only with the approval of the Secretary of Labor pursuant to a written request by the Contractor. The Secretary of Labor may require the Contractor to set aside assets, in a separate account, to meet his obligations under any unfunded plan or program.

(d) The Contracting Officer shall require that any class of laborers or mechanics, including apprentices and trainees, which is not listed in the wage determination decision and which is to be employed under the contract shall be classified or reclassified conformably to the wage determination decision, and shall report the action taken to the Secretary of Labor. If the interested parties cannot agree on the proper classification or reclassification of a particular class of laborers or mechanics, including apprentices and trainees to be used, the Contracting Officer shall submit the question, together with his recommendation, to the Secretary of Labor for final determination. Apprentices and trainees may be added under this clause only where they are employed pursuant to an apprenticeship or trainee program meeting the requirements of the Apprentices and Trainees clause below.

(e) In the event it is found by the Contracting Officer that any laborer or mechanic, including apprentices and trainees, employed by the Contractor or any subcontractor directly on the site of the

work covered by this contract has been or is being paid at a rate of wages less than the rate of wages required by paragraph (a) of this clause, or by the Apprentices and Trainees clause of this contract, the Contracting Officer may (1) by written notice to the Government Prime Contractor terminate his right to proceed with the work, or such part of the work as to which there has been a failure to pay said required wages, and (2) prosecute the work to completion by contract or otherwise, whereupon such Contractor and his sureties shall be liable to the Government for any excess costs occasioned the Government thereby.

(f) Paragraphs (a) through (e) of the clause shall apply to this contract to the extent that it is (1) a prime contract with the Government subject to the Davis-Bacon Act, or (2) a subcontract also subject to the Davis-Bacon Act under such prime contract.

2. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT—OVERTIME COMPENSATION (40 U.S.C. 327-333).

This contract is subject to the Contract Work Hours and Safety Standards Act and to the applicable rules, regulations, and interpretations of the Secretary of Labor.

(a) The Contractor shall not require or permit any laborer or mechanic, including apprentices, trainees, watchmen, and guards, in any workweek in which he is employed on any work under this contract to work in excess of 8 hours in any calendar day or in excess of 40 hours in such workweek on work subject to the provisions of the Contract Work Hours and Safety Standards Act unless such laborer or mechanic, including apprentices, trainees, watchmen, and guards, receives compensation at a rate not less than 1½ times his basic rate of pay for all such hours worked in excess of 8 hours in any calendar day or in excess of 40 hours in such workweek, whichever is the greater number of overtime hours. The "basic rate of pay," as used in this clause, shall be the amount paid per hour exclusive of the Contractor's contribution or cost for fringe benefits, and any cash payment made in lieu of providing fringe benefits, or the basic hourly rate contained in the wage determination, whichever is greater.

(b) In the event of any violation of the provisions of paragraph (a), the Contractor shall be liable to any affected employee for any amounts due, and to the United States for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including an apprentice, trainee, watchman, or guard, employed in violation of the provisions of paragraph (a) in the sum of \$10 for each calendar day on which such employee was required or permitted to be employed on such work in excess of 8 hours or in excess of the standard workweek of 40 hours without payment of the overtime wages required by paragraph (a).

3. APPRENTICES AND TRAINEES

(a) Apprentices shall be permitted to work at less than the predetermined rate for the work they performed (1) when they are employed and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or (2) if a person is employed in his first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen in any craft classification shall not be greater than the ratio permitted to the contractor as to his entire work force under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not a trainee as defined in paragraph (b) of this clause or who is not registered or otherwise employed as stated above, shall be paid the wage rate determined by the Secretary of Labor for the classification of work he actually performed. The Contractor or subcontractor shall furnish to the Contracting Officer written evidence of the registration of his

program and apprentices as well as the appropriate ratios and wage rates (expressed in percentages of the journeymen hourly rates) for the area of construction, prior to using any apprentices on the contract work. The wage rate paid apprentices shall be not less than the appropriate percentage of the journeymen's rate contained in the applicable wage determination.

(b) Trainees shall be permitted to work at less than the predetermined rate for the work performed when they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification, by the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training. The term "trainee" means a person registered and receiving on-the-job training in a construction occupation under a program which has been approved in advance by the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, as meeting its standards for on-the-job training programs and which has been so certified by the Bureau. The ratio of trainees to journeymen on this contract shall not be greater than the ratio permitted under the plan approved by the Bureau of Apprenticeship and Training. Every trainee must be paid at not less than the rate specified in the approved program for his level of progress. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Bureau of Apprenticeship and Training shall be paid not less than the wage rate determined by the Secretary of Labor for the classification of work he actually performed. The Contractor or subcontractor shall furnish the Contracting Officer written evidence of the certification of his program, the registration of the trainees, and the ratios and wage rates prescribed in that program. In the event the Bureau of Apprenticeship and Training withdraws approval of a training program, the Contractor shall no longer utilize trainees at less than the applicable predetermined rate for work performed until an acceptable program is approved.

(c) The utilization of apprentices, trainees, and journeymen under this clause shall be in conformity with the equal employment opportunity requirements of this contract.

(d) If at any time the Bureau of Apprenticeship and Training determines, after opportunity for a hearing, that the standards of a training program have not been complied with, or that such a program fails to provide adequate training for participants, the Contractor shall not utilize trainees at less than the predetermined rate for the classification of work actually performed until an acceptable program is approved. If the Contractor brings an appeal pursuant to 29 CFR 5.17 within 30 days of his receipt of a certified letter withdrawing the Bureau of Apprenticeship and Training's approval, the effect of the withdrawal of approval of the program will be delayed until a decision is rendered on the appeal pursuant to 29 CFR 5.17.

4. PAYROLLS AND BASIC RECORDS

(a) The Contractor shall maintain payrolls and basic records relating thereto during the course of the work and shall preserve them for a period of 3 years thereafter for all laborers and mechanics, including apprentices, trainees, watchmen, and guards working at the site of the work. Such records shall contain the name and address of each such employee, his correct classification, rate of pay (including rates of contributing for or costs assumed to provide, fringe benefits), daily and weekly number of hours worked, deductions made, and actual wages paid. Whenever the Contractor has obtained approval from the Secretary of Labor as provided in paragraph (c) of the clause entitled "Davis-Bacon Act", he shall maintain records which show the commitment, its approval, written communication of the plan or program to the laborers or mechanics affected, and the costs anticipated or incurred under the plan or program.

(b) The Contractor shall submit weekly a copy of all payrolls to the Contracting Officer. The Government Prime Contractor shall be responsible for the submission of copies of payrolls of all subcontractors. The copy shall be accompanied by a statement signed by the Contractor indicating that the payrolls are correct and complete, that the wage rates contained therein are not less than those determined by the Secretary of Labor, and that the classifications set forth for each laborer or mechanic, including

apprentices and trainees conform with the work he performed. Submission of the "Weekly Statement of Compliance" required under this contract and the Copeland Regulations of the Secretary of Labor (29 CFR Part 3) shall satisfy the requirement for submission of the above statement. The Contractor shall submit also a copy of any approval by the Secretary of Labor with respect to fringe benefits which is required by paragraph (c) of the clause entitled "Davis-Bacon Act". Contractors employing apprentices or trainees under approved programs shall include a notation of the first weekly certified payrolls submitted to the contracting agencies that their employment is pursuant to an approved program and shall identify the program.

(c) The Contractor shall make the records required under this clause available for inspection by authorized representatives of the Contracting Officer and the Department of Labor, and shall permit such representatives to interview employees during working hours on the job.

NOTE: Watchmen and guards appear on payroll records only for purposes of the Contract Work Hours and Safety Standards Act.

5. COMPLIANCE WITH COPELAND REGULATIONS

The Contractor shall comply with the Copeland Regulations of the Secretary of Labor (29 CFR Part 3) which are incorporated herein by reference.

6. WITHHOLDING OF FUNDS

(a) The Contracting Officer may withhold or cause to be withheld from the Government Prime Contractor so much of the accrued payments or advances as may be considered necessary (1) to pay laborers and mechanics, including apprentices, trainees, watchmen, and guards employed by the Contractor or any subcontractor on the work the full amount of wages required by the contract, and (2) to satisfy any liability of the Contractor and any subcontractor for liquidated damages under paragraph (b) of the clause entitled "Contract Work Hours and Safety Standards Act—Overtime Compensation."

(b) If the Contractor or any subcontractor fails to pay any laborer, mechanic, apprentice, trainee, watchman, or guard employed or working on the site of work, all or part of the wages required by the contract, the Contracting Officer may, after written notice to the Government Prime Contractor, take such action as may be necessary to cause suspension of any further payments or advances until such violations have ceased.

7. SUBCONTRACTS

The Contractor agrees to insert the clauses hereof entitled "Davis-Bacon Act," "Contract Work Hours and Safety Standards Act—Overtime Compensation," "Apprentices and Trainees," "Payrolls and Basic Records," "Compliance with Copeland Regulations," "Withholding of Funds," "Subcontracts," and "Contract Termination—Debarment" in all subcontracts. The term "Contractor" as used in such clauses in any subcontract shall be deemed to refer to the subcontractor except in the phrase "Government Prime Contractor."

8. CONTRACT TERMINATION—DEBARMENT

A breach of the clauses hereof entitled "Davis-Bacon Act," "Contract Work Hours and Safety Standards Act—Overtime Compensation," "Apprentices and Trainees," "Payrolls and Basic Records," "Compliance with Copeland Regulations," "Withholding of Funds," and "Subcontracts" may be grounds for termination of the contract, and for debarment as provided in 29 CFR 5.6.

9. DISPUTES CONCERNING LABOR STANDARDS

Disputes arising out of the labor standards provisions of this contract shall be subject to the Disputes clause except to the extent such disputes involve the meaning of classifications or wage rates contained in the wage determination decisions of the Secretary of Labor or the applicability of the labor provisions of this contract which questions shall be referred to the Secretary of Labor in accordance with the procedures of the Department of Labor.

LABOR STANDARDS PROVISIONS (Continued)
(Construction Contract)

The provisions of Clauses 1 through 9 of Standard Form 19A are modified and enlarged as follows:

10. LOCAL LABOR PROVISIONS

The wage rates listed in the schedule are the minimum hourly rates which may be paid under the contract. It is the responsibility of the Contractor to inform himself as to local labor conditions such as length of work-day and work-week, overtime compensation, fringe benefits payments, labor supply, and prospective changes or adjustment of wage rates; no increase in the contract price will be allowed on account of the payment of wages at rates in excess of those specified in the schedule, or of those added thereto by agreement or by determination of the Secretary of Labor.

11. SELECTION OF LABOR

(a) Insofar as possible, the Contractor should utilize the services of the United States Employment Service for obtaining labor of the unskilled, intermediate, and skilled classes.

(b) The Contractor is encouraged to participate in those bona fide apprenticeship programs of State Apprenticeship Councils recognized by the United States Department of Labor, and other training programs financed in whole or part by the Government.

12. COMPLIANCE WITH LABOR PROVISIONS

Except upon submission of evidence of an honest dispute with respect to labor provisions herein, payments under the contract may be delayed until receipt of payroll records containing required information and statements assuring compliance with labor provisions.

13. PAYROLLS, COPELAND ACT, AND FRINGE BENEFIT STATEMENTS

The Department of Labor has developed a weekly payroll form, Form WH-347, "Payroll (For Contractors' Optional Use)"; a corresponding instruction sheet, Form WH-347 Inst.; and a Form WH-348 Statement of Compliance. The data on the face of Form WH-348 appears on the reverse side of Form WH-347. The contractor, or subcontractors, may use the new payroll form or an appropriate substitute payroll form of his own choice. If a substitute payroll form is used, a copy of the weekly statement must be included or attached using either new Form WH-348, on which the weekly statement is printed separately, or any form with the identical wording. The WH forms are available for purchase from the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402.

14. SUBCONTRACTOR LABOR STANDARD STATEMENTS

The Contractor shall submit statements from all subcontractors that the Labor Standard Provisions of the contract have been inserted in all subcontracts, and also a clause requiring the subcontractors to include these provisions in any lower tier subcontracts which they may enter into, together with a clause requiring this insertion in any further subcontracts that in turn be made.

15. EQUIPMENT RENTAL

(a) No individual shall be employed as a laborer or mechanic on this contract except on a wage basis, but this shall not be construed to prohibit the rental of teams, trucks, or other equipment from individuals. No such rental equipment, or any charges for feed, fuel, supplies, or repairs on account of such agreement, shall cause any deduction from the wages accruing to any employee.

(b) All of the above provisions shall also apply where work is to be performed by piece work, station work, or by subcontract. The minimum wage shall be exclusive of equipment rental or any equipment which the Contractor's employee may furnish for accomplishing this work.

(c) In accordance with a decision of the Solicitor of Labor, dated September 13 and 26, 1961, the provisions of the Davis-Bacon Act and other related Acts will not be applied to bona fide owner-operators of trucks or other similar construction hauling equipment who are independent Contractors. Owner-Operator status shall be evidenced by a statement signed by BOTH the owner-operator and the contractor and submitted with the contractor's first payroll after the agreement becomes effective. Only one submission will be required for each owner-operator regardless of the number of pay periods worked and this one statement shall be considered as being continuously valid unless cancelled in writing by either or both of the signers. Subsequent payrolls shall include the names of the bona fide owner-operators noted as such, but need not show hours worked nor rates paid. These provisions pertain only to trucks and similar construction hauling equipment and the validity of owner-operator status for other types of equipment shall be subject to separate investigation, determination, and approval by the Contracting Officer.

16. MINIMUM WAGE RATES

The Secretary of Labor has made a determination of the minimum prevailing wage rates which may be paid to the classes of labor to be employed on this project. The decision number and date with minimum rates for this project are as follows on the succeeding pages.

If the following pages of minimum wage rates contain only one schedule, that schedule will apply to all the work described therein.

If the following pages of minimum wage rates contain two or more schedules, designating the work as "Building Construction," "Heavy Construction," and/or "Highway Construction" (singly or in any combination) the wage rate schedules will be applied in accordance with the following definitions:

Building Construction: Construction of build-structures, including modifications thereof, or additions or repairs thereto, intended for use for shelter, protection, maintenance, operations, comfort or convenience. Building construction shall include the demolition, excavation, and foundations for building construction.

Highway Construction: Construction of highways, roads, streets, alleys, sidewalks, guard rails, fences, parkways, parking areas, airports, trails, athletic fields, highway bridges, grade separations involving highways, cattle guards, cattle passes, light construction, drainage structures and culverts, sewage and waterworks improvements, incidental to street and highway improvements.

Heavy Construction: Construction of railroad projects, heavy construction and railroad bridges, heavy construction sewers and watermain, grade separations involving a railroad, foundations, pile driving, piers, abutments, retaining walls, viaducts, tunnels, subways, track elevation, elevated highways, drainage projects (other than for highways), sanitation projects, aqueducts, irrigation projects, flood control projects, reclamation projects, reservoirs, water

supply projects, water power development, hydro-electric development, transmission lines, pipe lines, locks, dams, dikes, levees, revetments, channels, channel cut-offs, intakes, dredging projects, jetties, breakwaters, launching ramps, docks, harbors, industrial sites (excluding paving operations), excavation and disposal by contract of overburden and the loading by contract of all materials from which the overburden has been removed (other than for highways), including the operation, maintenance and repair of all land and floating plant, equipment, vehicles and other facilities used in connection with and serving the aforementioned work and services, not including building construction.

However, it is the responsibility of the Contractor to use the proper rates in accordance with the local area practice for each wage classification involved. If the local area practice differs from or modifies the above definitions in any way, the local practice shall prevail. When a question arises as to whether or not the schedule used complies with local practice, it will be the responsibility of the Contractor to furnish proof that his actions do conform to local practice; however, the decision of the Contracting Officer shall be final. Any failure on the part of the Contractor to comply with the above stipulations will constitute a violation of the Labor Standards Provisions of the contract.

DECISION NO. 82-WY-75
 DATE OF DECISION: 5-14-82
 EXPIRES: 9-10-82

BUILDING CONSTRUCTION

	Basic Hourly Rates	Fringe Benefits Payments			
		H & W	Pensions	Vacation	Education and/or Appr. Tr.
BRICKLAYERS	\$ 13.00				
CARPENTERS	10.59	.70	.65	.75	.17
ELECTRICIANS	12.67	.72	3%+.75		3/4 of 1%
LABORERS	5.50				
PLUMBERS	9.55				
ROOFERS	8.00				
SHEET METAL WORKERS	11.93				
Welders - Receive rate prescribed for craft performing operation to which welding is incidental.					

Unlisted classifications needed for work not included within
 the scope of the classifications listed may be added after
 award only as provided in the labor standards contract
 clauses (29 CFR, 5.5 (a) (1) (ii)).

HEAVY CONSTRUCTION

	Basic Hourly Rates	Fringe Benefits Payments			
		H & W	Pensions	Vacation	Education and/or Appr. Tr.
CARPENTERS	\$10.19				
CEMENT MASONS	10.79				
IRONWORKERS:					
Structural	9.46				
Reinforcing	9.49				
PAINTERS:					
Brush and Spray	8.50				
LINE CONSTRUCTION:					
All work over 34.5 KV, all work on steel towers and/ or multiple wood struc- tures, all cross country underground communications work and all motor traffic controlling, street, and highway lighting:					
Linemen/Technicians	16.00	.45	3%+.50		3/4 of 1%
Equipment Operators	14.39	.45	3%+.50		3/4 of 1%
Groundmen/Truck Drivers	10.60	.45	3%+.50		3/4 of 1%
All work 34.5 KV and under:					
Lineman/Technicians	16.00	.45	3%+.50		3/4 of 1%
Line Equipment Operators	13.74	.45	3%+.50		3/4 of 1%
Groundman/Truck Drivers	10.60	.45	3%+.50		3/4 of 1%
LABORERS:					
Group 1	7.39				
Group 2	7.49				
Group 3	7.64				
Group 4	7.91				
Group 5:					
(a)	7.87				
(b)	7.71				
(c)	8.14				
(d)	7.98				

LABORERS (cont'd)

Group 1: Axeman and Hand Faller; Concrete Worker (wet or dry); Concrete Worker (curing and drying); Dumpman; Erector and Installer (includes the installation and erection of fences, snow fences, guard rails, median rails, median posts, signs and right-of way marker); Form Stripper; General Labor; Heater Tender; Material Handler (lumber, rods, cement, concrete); Nozzleman, air and water; Pre-watering, pre-wetting and pre-irrigation (all work); Kiprap Man; Sandblaster Pot Tender; Signal Men; Grade Concrete, etc.; Scissor Man or Hopper Man; Stake Jumper for equipment; Tar and Asphalt Pot Tender; Wrecking and demolition crews

Group 2: Asphalt Raker and Tamper; Bin Wall Installer; Bituminous Curb Builder; Cement Mason or Finisher and Tender; Chuck Tender; Form Setter (paving); Hand operated Vibratory Roller; Landscaper; Mortar Man on Stone Riprap; Operator of pneumatic, electric, gas tamper and similar mechanical tools; Pipe Setter (corrugated culvert pipe sectional, multiplate and similar type); Pipe Setter; Pipelayer (non-metallic); Pipe Wrapper; Power type concrete buggy (push or ride); Power Saw Operator (clearing); Vibrator - concrete

Group 3: Concrete Saw; Guniting Nozzleman; High Scaler (using air tools from Bos'n Chair, Swing Stage, Lift Belt or Block and Tackle, shall receive \$.20 per hour more than the classified rate); Jackhammer and Pavement Breaker; Sandblaster Nozzleman; Sewer Pipe Installer (non-metallic), clay, concrete, etc. (Caulker, Collarman, Jointer, Mortarman, Rigger, Jacker)

Group 4: Powderman and Blaster; Wagon Drill, Air-trac, Diamond and other drills for blasting powder or grouting

Group 5: Tunnel and Underground Work:

- (a) Brakeman; Swamper; Vibrator Man
- (b) Bull Gang; Dumpman; Mucker; Trackman
- (c) Miners (Drillers); Machine Men; Timbermen; Steelmen; Drill Doctor Form Setter and Mover; Spader; Tuggers spilling and/or Caisson Workers; Powderman; Jackhammer-men Finishers
- (d) Nipper; Chucktender; Topman; Toploader

WELDERS: Receive rate prescribed for craft performing operation to which welding is incidental

		Basic Hourly Rates	Fringe Benefits Payments			
			H & W	Pensions	Vacation	Education and/or Appr. Tr.
POWER EQUIPMENT OPERATORS:						
Group 1		\$ 9.79				
Group 2		9.84				
Group 3		9.89				
Group 4		9.93				
Group 5		9.96				
Group 6		10.01				
Group 7		10.05				
Group 8		10.07				
Group 9		10.18				
Group 10		10.24				
Group 11		10.26				
Group 12		10.44				
Group 13		10.48				
Group 14		10.55				
Group 15		10.61				
Group 16		10.78				
Group 17		11.12				

Group 1: Auger Machine Operator (post holes, etc.); Batch Bin Weighman, Scissorman or Hopperman; Brakeman; Crusher Oiler; Oiler Utility; Screed Operator; Tractor Operators (Farm, Crawler or wheel type, 60 HSP - drawbar) or less with or without use of power attachments, except for use of Backhoe or Bucket

Group 2: Broom Operators, self-propelled; Cableway Signalman (Bellboy); Concrete Saw (self-propelled); Fireman; Power Loader, belt and bucket type

Group 3: Air Compressor over 315 cu. ft. capacity; Chip Spreader Operator; Form Grader Operator; Joint Machine Operator; Longitudinal Float Operator; Mixer Operator Concrete (under one yard); Roller Operators (self-propelled pneumatic, rubber tired, sheep foot vibratory or combination type); Tire Repairman

Group 4: Pump Operator (all others)

Group 5: Conveyor Belt Operator; Fork Lift and Lumber Stacker; Screening Plant Operator

Group 6: A-Frame Truck; Tractor Operators (farm, crawler or wheel type, over 60 HSP - drawbar) without use of power attachments

POWER EQUIPMENT OPERATORS (Cont'd)

- Group 7: Oiler, Lead Utility
- Group 8: Gunnite and Grout Machine Operator; Mulching Machine Operator; Oil Distributor
- Group 9: Front End Loader (up to and including $1\frac{1}{2}$ cu. yds.); Pavement Breakers, Hydro-tamper and similar type machines; Pumps, Well Points
- Group 10: Hoist Operator (one drum)
- Group 11: Haulage Motorman and Industrial type Motorman; Motor Patrol Operator (all others); Pump Operator (in tunnels, shafts, raises); Hydro type Cranes (up to 15 tons)
- Group 12: Air Compressor, two or more machines or tunnels, shafts, raises or Plant Operators; Asphalt Plant Operator; Bituminous Lay-down Machine Operator; CMI Machine or similar; Concrete Batch Plant; Concrete Finish Machine Operator; Concrete Multi Blade Span Saw (Hunt process or similar); Concrete Spreader and Paver Operator; Crusher Operator; Drilling Machine, integrated (Core, Rotary, Caisson, Diamond); Elevating Grader; Front End Loader (over $1\frac{1}{2}$ cu. yds.); Jumbo Form Operator; Mixer Operator, base course pug mill type; Mixer Bituminous Operator (travel plant); Mixer Operator Concrete (over one yard); Motor Patrol Operator (finish); Mucking Machine Operator (all types); Pneumatic Guns; Pumpcrete Operator; Roller Operator (Tandem steel wheel, three axle or three wheel); Scraper Equipment (all types); Shovels, Draglines, Cranes, Piledrivers, all truck mounted cranes (manufacturers' rating) up to $3\frac{1}{2}$ yds., all attachments; Hydro type cranes (15 tons and over); Shuttle Car Operator; Subgrade Machine Operator (power); Tractor Operator, all with use of power attachments and including Pushcat, Dozer, Tournadozer, etc. (The use of power attachments shall not include diskings, pulling of rollers, or similar unskilled actions); Trenching Machine Operator; Wash Plant Operator
- Group 13: Welder, Machine Doctor
- Group 14: Hoist Operator (two or more drums of shafts or raises); Repairman; Mechanics; Machine Doctors, Welders; Heavy Duty Mechanic, Machine Doctor
- Group 15: Cableway Operators; Mixer Dual Drum; Cranes, (Whirley, Gantry, Stiffleg, Overhead traveling)
- Group 16: Shovels, Draglines, Cranes, Piledrivers, all truck mounted cranes (manufacturer's rating) $3\frac{1}{2}$ yds. to 7 cu. yds.; all attachments; Wheel Excavator Operator
- Group 17: Shovels, Draglines, Cranes, Piledrivers, all truck mounted cranes, (manufacturer's rating) 7 cu. yds. and over, all attachments

TRUCK DRIVERS:

Pickup-up Truck Drivers
(when used for hauling)

\$ 8.05

Dump Truck Drivers (water
level capacity box):

7 cu. yds. and less

8.10

Over 7 cu. yds. to and
including 10 cu. yds.

8.25

Over 10 cu. yds. to and
including 13 cu. yds.

8.35

Over 13 cu. yds. to and
including 20 cu. yds.

8.85

Over 20 cu. yds. to and
including 25 cu. yds.

8.85

Over 25 cu. yds. to and
including 30 cu. yds.

8.95

Over 30 cu. yds. to and
including 35 cu. yds.

9.00

Over 35 cu. yds. to and
including 40 cu. yds.

9.05

Over 40 cu. yds. to and
including 45 cu. yds.

9.10

Over 45 cu. yds. (to be
negotiated prior to use)

Snow Plow Truck Drivers
(the cu. yd. rate of the
truck driver classifi-
cation)

Pilot Car Drivers

8.05

Gravel Spreader

8.10

Flat Rack Material Truck
Drivers:

Less than 2 tons

8.10

2 tons to 5 tons

8.25

Over 5 tons

8.35

Low Boy and Tandem Axle

Float Drivers

8.85

	Basic Hourly Rates	Fringe Benefits Payments			
		H & W	Pensions	Vacation	Education and/or Appr. Tr.
TRUCK DRIVERS: (Cont'd)					
Gang Truck Drivers	\$ 8.10				
Stringing Truck Drivers:					
Single axle type truck	8.10				
Multiple axle type truck, semi	8.85				
Winch Trailer Truck Drivers (cable and hoist)	8.35				
Utility Winch Truck Drivers	8.35				
"A" Frame Truck Drivers	8.35				
Transit Mix or Wet Mix Truck Drivers:					
Less than 5 cu. yds.; single axle	8.35				
Over 5 cu. yds. to and including 10 cu. yds.;					
Tandem axle	8.45				
Over 10 cu. yds.	8.55				
Power Broom Drivers and/or Operators	8.25				
Water Truck Drivers:					
2500 gallons or less (straight truck)	8.10				
2500 gallons or less (semi truck)	8.25				
Over 2500 gallons to and including 3600 gallons	8.35				
Over 3600 gallons (straight truck)	8.45				
Over 3600 gallons (semi truck)	8.55				
Heavy Duty (Euclids, electric or similar type)	8.85				

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR, 5.5(a)(1)(ii)).

STATEMENT OF COMPLIANCE

Date _____

I, _____ do hereby state:
(Name of signatory party) (Title)

(1) That I pay or supervise the payment of the persons employed by _____ on
(Contractor or subcontractor)
the _____; that during the payroll period commencing on the _____ day of _____,
(Building or work)
19__ and ending the _____ day of _____, 19__, all persons employed on said project have been paid the full
weekly wages earned, that no rebates have been or will be made either directly or indirectly to or on behalf of said _____
_____ from the full weekly wages earned by any person and that no deductions have
(Contractor or subcontractor)
been made either directly or indirectly from the full wages earned by any person, other than permissible deductions as defined
in Regulations, Part 3 (29 CFR Subtitle A), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat
948.63 Stat. 108, 72 Stat. 967; 76 Stat. 357; 40 U.S.C. 276c), and described below:

(2) That any payrolls otherwise under this contract required to be submitted for the above period are correct and complete,
that the wage rates for laborers or mechanics contained therein are not less than the applicable wage rates contained in any
wage determination incorporated into the contract; that the classifications set forth therein for each laborer or mechanic con-
form with the work he performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered
with a State apprenticeship agency recognized by the Bureau of Apprenticeship and Training, United States Department of
Labor, or if no such recognized agency exists in a State, are registered with the Bureau of Apprenticeship and Training, United
States Department of Labor.

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS

- ☐ - In addition to the basic hourly wage rates paid to each laborer or mechanic listed in the above referenced pay-
roll, payments of fringe benefits as listed in the contract have been or will be made to appropriate programs
for the benefit of such employees, except as noted in Section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

- ☐ - Each Laborer or mechanic listed in the above referenced payroll has been paid as indicated on the payroll,
an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe
benefits as listed in the contract, except as noted in section 4(c) below.

(c) EXCEPTIONS

EXCEPTION (CRAFT)	EXPLANATION
REMARKS	

NAME AND TITLE

SIGNATURE

INSTRUCTIONS FOR PREPARATION OF STATEMENT OF COMPLIANCE

This statement of compliance meets needs resulting from the amendment of the Davis-Bacon Act to include fringe benefits provisions. Under this amended law, the contractor is required to pay fringe benefits as predetermined by the Department of Labor, in addition to payment of the minimum rates. The contractor's obligation to pay fringe benefits may be met by payment of the fringes to the various plans, funds, or programs or by making these payments to the employees as cash in lieu of fringes.

The contractor should show on the face of his payroll all monies paid to the employees whether as basic rates or as cash in lieu of fringes. The contractor shall represent in the statement of compliance that he is paying to others fringes required by the contract and not paid as cash in lieu of fringes. Detailed instructions follow:

Contractors who pay all required fringe benefits:

A contractor who pays fringe benefits to approved plans, funds, or programs in amounts not less than were determined in the applicable wage decision of the Secretary of Labor shall continue to show on the face of his payroll the basic cash hourly rate and overtime rate paid to his employees, just as he has always done. Such a contractor shall check paragraph 4(a) of the statement to indicate that he is also paying to approved plans, funds, or programs not less than the amount predetermined as fringe benefits for each craft. Any exception shall be noted in Section 4(c).

Contractors who pay no fringe benefits:

A contractor who pays no fringe benefits shall pay to the employee and insert in the straight time hourly rate column of his payroll an amount not less than the predetermined rate for each classification plus the amount of fringe benefits determined for each classification in the applicable wage decision. Inasmuch as it is not necessary to pay time and a half on cash paid in lieu of fringes, the overtime rate shall be not less than the sum of the basic predetermined rate, plus the half time premium on the basic or regular rate plus the required cash in lieu of fringes at the straight time rate. To simplify computation of overtime, it is suggested that the straight time basic rate and cash in lieu of fringes be separately stated in the hourly rate column, thus \$3.25/.40. In addition, the contractor shall check paragraph 4(b) of the statement to indicate that he is paying fringe benefits in cash directly to his employees. Any exceptions shall be noted in Section 4(c).

Use of Section 4(c), Exceptions

Any contractor who is making payment to approved plans, funds, or programs in amounts less than the wage determination requires is obliged to pay the deficiency directly to the employees as cash in lieu of fringes. Any exceptions to Section 4(a) or 4(b), whichever the contractor may check, shall be entered in Section 4(c). Enter in the Exception column the craft, and enter in the Explanation column the hourly amount paid the employees as cash in lieu of fringes, and the hourly amount paid to plans, funds, or programs as fringes.

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL
EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.

2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Goals for Minority Participation for Each Trade

<u>Timetable</u>	<u>Goal (Percent)</u>
Until further notice	3.3

Goals for Female Participation in Each Trade

<u>Timetable</u>	<u>Goal (Percent)</u>
Until further notice	6.9

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole

purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is the area in which the project is located.

1. DESCRIPTION: The principal features of the work include a .7 MGD water treatment plant, distribution system improvements, a raw water reservoir, and a 0.75 MG buried storage tank.

All work will be performed under a single contract.

2. LOCATION: The project is located in Canyon Village in Yellowstone National Park, Wyoming, as shown on the General Location Map, Sheet 1.

3. ACCESS:

A. Hauling Restrictions: Comply with all legal load restrictions in the hauling of materials on public roads beyond the limits of the project. Load restrictions on park roads are identical to the state load restrictions with such additional regulations as may be imposed by the Park Superintendent. Information regarding rules and regulations for vehicular traffic on park roads may be obtained from the Office of the Park Superintendent. A special permit will not relieve Contractor of liability for damage which may result from moving of equipment.

B. Public traffic will be permitted on the existing roads while improvements are underway. Road closure for brief periods will be permitted, when required for construction operations, upon specific approval of Contracting Officer.

C. Park maintenance traffic will not be disrupted by construction operations. Temporary bypass roads will be constructed as called for and approved by the Contracting Officer to maintain traffic routes.

D. Pedestrian access will be maintained to all buildings in a neat and orderly fashion. Bypass boardwalks will be constructed as called for and approved by the Contracting Officer.

4. LAYOUT OF WORK:

A. Contracting Officer will set initial construction stakes establishing lines, slopes, and grades for work, and reference and base lines and bench marks for structures. Contractor shall execute the work in accordance with these stakes, and perform all additional staking he deems necessary to execute the work.

B. Contractor shall preserve all stakes and marks. Stakes or marks originally set by the Contracting Officer which are destroyed by Contractor will be replaced by Contracting Officer, with the cost of replacement deducted from Contractor's final payment.

C. Existing Monuments: All benchmarks, land corners, and triangulation points, established by other surveys, existing within the construction area shall be preserved. If existing monuments interfere with the work, secure written permission before removing them.

5. BORROW PITS:

A. All borrow material, base course, and concrete aggregate shall be Contractor furnished. A borrow source approximately 2 miles south of Flagg Ranch that is owned by the National Park Service is available for development by the Contractor. Material in a specific area of the borrow pit is undeveloped and it will be the Contractor's responsibility to make the material conform to contract specifications. Part of the pit has been developed by others, and this part of the pit will not be further developed except by those who originally developed it. All existing stockpiled materials are owned by others and cannot be utilized without their permission. No development work will be accomplished until an approved restoration plan is made. Contractor furnished sources from outside the park boundary shall comply with applicable state and local laws.

B. Notify Contracting Office of the location of off-site borrow pits no later than the preconstruction conference so that he may determine if a Cultural Resources Survey must be undertaken. A Cultural Resources Survey is not required for borrow material from stockpiled sources. However, for borrow material from undisturbed sources, Contracting Officer will arrange for a survey to be conducted within 10 calendar days following notification of the pit location before disturbance of the site. Should the survey reveal a finding of Cultural Resources of the National Register quality, Contractor will be so advised in writing within 20 calendar days after disclosure of the pit location, and shall promptly locate another source of borrow.

C. Obtain permission, in writing, from the landowners for Government employees to take samples and survey borrow pit sites for Cultural Resources evaluation and measurement purposes. No claim for time extension or additional compensation will be allowed for complying with the provisions of this article.

6. SOIL INVESTIGATION REPORT: Copies of the report and addendum are available for examination by Bidders at the Office of the Park Superintendent.

7. PRECONSTRUCTION CONFERENCE: Prior to start of construction, Contracting Officer will arrange an on-site meeting with Contractor. The meeting will include the following:

- Claim procedures
- Correspondence procedures
- Designation of responsible personnel
- Labor standards provisions
- Payroll reports
- Changes
- Payments to Contractor
- Subcontractors
- National Park Service regulations
- Accident prevention program (including name of responsible supervisor)
- Safety program
- Tentative construction schedule
- Submittal of shop drawings, project data, and samples

8. SPECIAL CONSTRUCTION REQUIREMENTS: Work along or near the Grand Loop Road, in concession areas, or in horse corral area may only be accomplished during the off-season period which is defined as the period from September 1 to May 30 of the following year unless specific exceptions are made by the Contracting Officer in writing. Project shutdown during bad weather months will be allowed, but all water facilities, roads, and access to buildings must be in a usable condition as approved by the Contracting Officer.

The Contractor will explore by excavation all existing pipeline connections and critical crossings as the first part of his work. Service lines and connections to the existing system will be made after testing and acceptance of main lines.

The Contractor will notify the Contracting Office 4 weeks prior to completion of major work in the water treatment plant so that the Government may order and stock process chemicals. After the 4 weeks has elapsed, the Government will, depending on delivery date, store these chemicals in the water treatment plant.

The Contractor will assure that the existing water supply is maintained during construction and until the plant is fully operational.

END

1-1 REFERENCED STANDARDS: The following list of abbreviations, which may be used in the construction specifications, refer to the organizations and specifications of the organizations listed below:

AA	- Aluminum Association
AABC	- Associated Air Balance Council
AAH	- American Association of Nurserymen
AASHTO	- American Association of State Highway and Transportation Officials.
ABPA	- Acoustical and Board Products Association
ACI	- American Concrete Institute
AGA	- American Gas Association
AGC	- Associated General Contractors
AIA	- American Insurance Association
AISC	- American Institute of Steel Construction, Inc.
AISI	- American Iron and Steel Institute
AIFC	- American Institute of Timber Construction
AMCA	- Air Moving and Conditioning Association
ANSI	- American National Standards Institute
APA	- American Plywood Association
APHA	- American Public Health Association
API	- American Petroleum Institute
AREA	- American Railway Engineering Association
ARI	- Air Conditioning and Refrigeration Institute
ARIB	- Asphalt Roofing Industry Bureau
ASHRAE	- American Society of Heating, Refrigeration and Air-Conditioning Engineers
ASME	- American Society of Mechanical Engineers
ASTM	- American Society for Testing and Materials
AWI	- Architectural Woodwork Institute
AWPA	- American Wood Preservers Association
AWPB	- American Wood Preservers Bureau
AWPI	- American Wood Preservers Institute
AWS	- American Welding Society, Inc.
AWWA	- American Water Works Association
BBC	- Basic Building Code
BIA	- Brick Institute of America
BOCA	- Brick Officials and Code Administrators International
CBM	- Certified Ballast Manufacturers
CFA	- California Fertilizer Association
CGA	- Compressed Gas Association
CISPI	- Cast Iron Soil Pipe Institute
CRA	- California Redwood Association
CRSI	- Concrete Reinforcing Steel Institute
CS	- Commercial Standards

JOT	- Department of Transportation
ETL	- Electrical Testing Laboratories
FHA	- Federal Housing Administration
FHWA	- Federal Highway Administration
FM	- Factory Mutual Laboratory
FPL	- U.S. Forest Products Laboratory
FS	- Federal Specifications
GA	- Gypsum Association
GOAA	- General Outdoor Advertising Association
HPMA	- Hardwood Plywood Manufacturers Association
ICBO	- International Conference of Building Officials
IEEE	- The Institute of Electrical and Electronics Engineers
IFI	- Industrial Fasteners Institute
IMIAWC	- International Masonry Industry All-Weather Council
IPC&A	- Insulated Power Cable Engineers Association
IRS	- Internal Revenue Service
MBMA	- Metal Building Manufacturers Association
MLA	- Metal Lath Association
MS	- Military Specification
NBC	- National Building Code
NBS	- National Bureau of Standards
NCMA	- National Concrete Masonry Association
NCPI	- National Clay Pipe Institute
NEC	- National Electrical Code
NELMA	- Northeastern Lumber Manufacturers Association
NEMA	- National Electrical Manufacturers Association
NESC	- National Electrical Safety Code
NFPA	- National Fire Protection Association
NFPA	- National Forest Products Association
NHLA	- National Hardwood Lumber Association
NHPMA	- Northern Hardwood and Pine Manufacturers Association
NIOSH	- National Institute of Occupational Safety and Health
NLMA	- National Lumber Manufacturers Association
NPA	- National Particleboard Association
NPCA	- National Pest Control Association
NSF	- National Sanitation Foundation
NWMA	- National Woodwork Manufacturer's Association
OSHA	- Occupational Safety and Health Administration
PCA	- Portland Cement Association
PCI	- Prestressed Concrete Institute
PI	- Perlite Institute
PPI	- Plastics Pipe Institute
PS	- Product Standard
RCSHSB	- Red Cedar Shingle and Handsplit Shake Bureau
RIS	- Redwood Inspection Service
SBCC	- Southern Building Code Congress International, Inc.
SCMA	- Southern Cypress Manufacturers Association
SFPA	- Southern Forest Products Association
SHLMA	- Southern Hardwood Lumber Manufacturers Association

SJI - Steel Joist Institute
SMACNA - Sheet Metal and Air Conditioning Contractors
National Association, Inc.
SPA - Southern Pine Association
SPI - Society of the Plastics Industry, Inc.
SPIB - Southern Pine Inspection Bureau
SSPC - Steel Structures Painting Council
SWI - Steel Window Institute
TCA - Tile Council of America
TPI - Truss Plate Institute
UBC - Uniform Building Code
UL - Underwriters Laboratories, Inc.
WCLIB - West Coast Lumber Inspection Bureau
WPCF - Water Pollution Control Federation
WWPA - Western Wood Products Association

END

The following bid items are organized into a Proposal:

1. BID ITEM NO. 1, WATER TREATMENT PLANT. This item includes all clearing and grubbing, tree removal, demolition of the temporary water treatment plant backwash pond, careful dismantling and removal of the filter tank and Chlorination Building at the storage tanks to Mammoth Hot Springs, excavation, grading and backfill except for the graveling of the road; all work in the raw water reservoir area except for the liner but including the outlet box structure, and inlet splash pan and other structures, but not including the pond lining; all work in the backwash pond area including the 6-inch galvanized steel pipe, reducer, supports, and concrete work; water treatment plant and backwash ponds' pumphouse including buildings, structural, architectural, mechanical, electrical and control systems, all painting and finish work and all water treatment equipment. It includes all piping to 5 feet outside the face of the structure along the pipe centerline; all connections and disconnections to existing system including removal and reinstallation of equipment; all buried electrical power service cables, connections, meter socket and related equipment and all direct buried control cable. It includes all items necessary to provide an operating water treatment system except as described by other bid items.

All other bid items are as described in the individual sections.

END

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of establishing an effective accident prevention program and providing a safe environment for all personnel and visitors.

1-2 QUALITY ASSURANCE: Clause 12 and Clause 39 of the General Provisions. In case of conflicts between Federal, state, and local safety and health requirements, the most stringent shall apply.

1-3 SUBMITTALS:

A. At the preconstruction conference, and in accordance with Section 01300, submit:

1. Accident Prevention Program: The program shall include:

a. Name of responsible supervisor to carry out the program.

b. Weekly and monthly safety meetings.

c. First aid procedures.

d. Outline of each phase of the work, the hazards associated with each major phase, and the methods proposed to ensure safety of the public and employees.

e. Training, both initial and continuing.

f. Planning for possible emergency situations, such as floods, fires, cave-ins, slides, explosions, power outages, and wind storms. Such planning shall take into consideration the nature of construction, site conditions, and degree of exposure of persons and property.

2. Certificates: Provide certificates from a mechanic that all mechanical equipment has been inspected and meets OSHA requirements.

B. Submit a copy of test reports, as required by OSHA, for personnel working with hazardous materials.

C. Submit a report of safety meetings and of inspections.

1-4 ACCIDENT REPORTING: Within 7 days of a reportable accident, fill out and forward to the Contracting Officer, a DI-134 form. The DI-134 form may be obtained from the Contracting Officer. A reportable accident is defined in Clause 39(d) of the General Provisions and includes fires.

1-5 QUALIFICATIONS OF EMPLOYEES:

A. Ensure that employees are physically qualified to perform their assigned duties in a safe manner.

B. Do not allow employees to work whose ability or alertness is impaired because of drugs, fatigue, illness, intoxication, or other conditions that may expose themselves or others to injury.

C. Operators of vehicles, mobile equipment, hoisting equipment, and hazardous plant equipment shall be able to understand signs, signals, and operating instructions. Provide operating instructions for all equipment. Newly hired operators shall be individually tested by an experienced operator or supervisor to determine if they are capable of safely operating equipment.

PART 2: MATERIALS

2-1 FIRST AID FACILITIES: Provide adequate facilities for the number of employees and the type of construction at the site.

2-2 PERSONNEL PROTECTIVE EQUIPMENT: Meet requirements of NIOSH and MSHA, where applicable, as well as ANSI.

2-3 BARRIERS: Section 01530.

PART 3: EXECUTION

3-1 EMERGENCY INSTRUCTIONS: Post telephone numbers and reporting instructions for ambulance, physician, hospital, fire department, and police in conspicuous locations at the work site.

3-2 ESCAPE ROUTES: Provide and maintain adequate escape routes at all times in accordance with the Life Safety Code (NFPA 101). No corridor, aisle, stairway, door, or exit shall be obstructed or used in a manner that interferes with escape routes.

3-3 PROTECTIVE EQUIPMENT:

A. Inspect personal protective equipment daily and maintain in a serviceable condition. Clean, sanitize, and repair, as appropriate, personal items before issuing them to another individual.

B. Inspect and maintain other protective equipment and devices before use and on a periodic basis to insure safe operation.

3-4 SAFETY MEETINGS:

A. As a minimum, conduct weekly 15-minute "toolbox" safety meetings. These meetings shall be conducted by a foreman and attended by all construction personnel at the worksite.

B. Conduct monthly safety meetings for all levels of supervision. Notify the Contracting Officer so that he may attend. These meetings shall be used to review the effectiveness of the Contractor's safety effort, to resolve current health and safety problems, and to provide a forum for planning safe construction activities and for updating the accident prevention program. The Contracting Officer will enter the results of the meetings into his daily log.

3-5 HARD HATS AND PROTECTIVE EQUIPMENT AREAS:

A. A hard hat area will be mutually agreed upon by the Contracting Officer and the Contractor and so designated by a physical barrier.

B. It is the Contractor's responsibility to require all personnel working or visiting the site to wear hard hats and other necessary protective equipment at all times.

3-6 TRAINING:

A. First Aid: Provide adequate training to ensure prompt and efficient first aid.

B. Hazardous Material: Train and instruct each employee exposed to hazardous material in safe and approved methods of handling and storage. Hazardous materials are defined as explosive, flammable, poisonous, corrosive, oxidizing, irritating, or otherwise harmful substances that could cause death or injury.

END

PART 1: GENERAL

1-1 SUBMITTAL PROCEDURE:

A. At least 30 days prior to his need for approval, Contractor shall forward to Contracting Officer all submittals required by the individual sections of the specifications. Unless a different number is called for in the individual sections, submit five copies of each shop drawing, five copies of all operation and maintenance instructions, and three specimens of each sample requested, all of which will be retained by Contracting Officer. Contractor shall submit, in addition, whatever copies he wants returned to him.

B. Identify all submittals on National Park Service form DSC-1(CS). Contracting Officer will provide a project identification stamp to identify each applicable page of the submittal, and an approval stamp. Imprint the face of each sheet with both stamps and fill in the blanks in the identification stamp.

C. Submittals that are related to or affect each other shall be forwarded simultaneously as a package to facilitate coordinated review. Uncoordinated submittals will be rejected.

D. Contracting Officer reserves the right to require submittals in addition to those called for in individual sections.

1-2 CONTRACTING OFFICER'S APPROVAL: Contracting Officer will indicate his approval or disapproval of each submittal, and his reasons for disapproval. When submittals have been approved, the number of copies Contractor wants for his own use will be returned. Any work done before approval shall be at Contractor's own risk.

1-3 SHOP DRAWINGS:

A. The term "shop drawings" includes drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, and similar materials furnished by Contractor to explain in detail specific portions of the work required by the Contract.

B. Contractor shall coordinate all such drawings, and review them for legibility, accuracy, completeness and compliance with contract requirements and shall indicate his approval thereon as

evidence of such coordination and review. Shop drawings submitted to Contracting Officer without evidence of Contractor's approval will be returned for resubmission.

C. Approval by Contracting Officer shall not relieve Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with requirements of this Contract, except with respect to variations described and approved in accordance with Paragraph D below.

D. If shop drawings show variations from contract requirements, Contractor shall describe such variations in writing, separate from the drawings, at time of submission. All such variation must be approved by Contracting Officer.

1-4 OPERATION AND MAINTENANCE INSTRUCTIONS: Manufacturer's printed instructions shall include installation instructions, operating instructions, schematics for electrical and hydraulic systems, maintenance literature, lubrication requirements, and parts lists.

1-5 CERTIFICATES: For those items called for in individual sections, furnish certificates from manufacturers, suppliers, or others certifying that materials or equipment being furnished under the Contract comply with the requirements of these specifications.

1-6 SAMPLES: Samples shall be of sufficient size to clearly illustrate functional characteristics and full range of color, texture, and pattern.

1-7 PROGRESS SCHEDULE: As soon as possible after receiving Notice of Award and before any work is begun, submit a Progress Schedule (normally in bar chart form) showing estimated starting and completion dates for each part of the work.

1-8 SCHEDULE OF VALUES:

A. Submit a schedule of dollar values for the various portions of the work. The schedule shall be based on the Contract Bid Schedule or Bid Form and shall include all bid items.

B. Each lump sum bid item and each unit price bid item that involves a series of operations shall be broken down into component parts for which progress payments are desired by Contractor. The dollar value of each component part shall include a directly proportional amount of overhead and profit. The total costs for the component parts shall equal the amount

bid by the Contractor for that item, and the total cost of all items shall equal the contract sum.

C. When requested, support dollar values with data to support their correctness. When approved, the Schedule of Values will form the basis for progress payments as provided in Clause 7 of the General Provisions.

1-9 REVIEW OF SCHEDULES: Submit Schedule of Values and Progress Schedule as a package. Both the Progress Schedule and the Schedule of Values shall be subject to review and modification by Contracting Officer both for format and content.

PART 2: MATERIALS Not used.

PART 3: EXECUTION Not used.

END

1. SIGNS, SIGNALS, AND BARRICADES: Provide, erect, and maintain barricades, lights, danger signals and warning signs, and take all necessary precautions for the protection of the work and safety of the public. Provide, erect, and maintain sufficient approved detour signs at road closures and along detour routes. Illuminate barricades and obstructions at night; keep safety lights burning from sunset to sunrise. All barricades and signs shall be in accordance with Part VI. ANSI D6.1, (MUTCD), Part VI.

2. UTILITIES:

A. Water: Water will be Government-furnished without charge from within the Canyon Village developed areas, subject to availability and reasonable usage. The Contractor will be responsible for hauling water to where he needs it.

B. Electricity and Gas: Contractor furnished. Provide, maintain, and pay for all temporary connections to existing distribution systems. Install and maintain lines and connections in an approved manner; furnish with acceptable protective devices to prevent damage to Government property. When temporary connections are removed, restore existing utility services to their original condition.

C. Telephone: Contractor furnished, except for government field office.

D. Heating, Ventilating, and Lighting: Provide and maintain adequate, approved facilities, as required for safety and construction requirements, during the progress of the work.

E. Interruption of Existing Services: Permitted only with prior consent of Contracting Officer.

3. STORAGE FACILITIES:

A. Confine storage of materials to the project site as determined by the Contracting Officer.

B. Provide temporary sheds or other covered facilities for storage of materials subject to weather damage. Number and size of structures shall be subject to Contracting Officer's approval. Locate structures to avoid interference with work and relocate as required by progress of work.

C. Remove structures and surplus stored materials at completion of work.

4. SANITARY FACILITIES:

A. Provide and maintain facilities in compliance with applicable state and local laws, codes, and ordinances.

B. Provide cool, potable water for construction personnel in locations convenient to work stations.

C. Provide sufficient lighted and ventilated toilet facilities in weather-proof, sightproof, sturdy enclosures. These facilities shall be self-contained. Place in approved locations where facilities will be secluded from public observation and convenient to work stations. Relocate as work progress requires.

D. Completely remove sanitary facilities on completion of work.

5. FIELD OFFICE:

A. If Contractor elects to establish an office for his own use, the size, location, and construction shall be subject to approval.

B. Provide at a designated location an office for Contracting Officer's use.

1. Construction: Structurally sound, weathertight, minimum 120 square feet, with natural light, adjustable ventilation, and an exterior door with deadbolt, keyed from outside.

2. Furnishings: One desk and chair, drafting table and stool, plan rack, two-drawer filing cabinet, 3 feet of 10-inch deep shelving, coat rack, two additional chairs, desk lamp, drafting table lamp, and thermometer.

3. Services: Provide and maintain heat, light, power, and air conditioning. Telephone service will be provided and paid for by the Government. Provide cleaning services at regular intervals.

C. Remove field offices at completion of work.

6. CONSTRUCTION CAMP: The Government will make available 8 trailer sites for the Contractor, which the Contractor may occupy with reasonable population as approved by the Contracting Officer. The Contractor shall pay a monthly "occupation fee" for each site which will include garbage, electricity potable water and sewer. The Contractor will pay for his own propane and may not use electric heaters, stoves, etc.

END

1. PRESERVATION OF NATURAL FEATURES: Confine all operations within the work limits of the project. Exercise special care to maintain natural surroundings undamaged. Do not remove, injure, or destroy trees or other plantings without prior approval. Barricade trees, rock outcroppings or other natural features to be preserved within the work limits. Do not fasten ropes, cables or guys to existing trees for anchorage. Restore damaged trees or natural features as nearly as possible to original condition at no additional expense to the Government.

2. HOUSEKEEPING:

A. Keep project neat, orderly, and in a safe condition at all times. Immediately remove all hazardous rubbish. Do not allow rubbish to accumulate. Provide on-site containers for collection of rubbish or dispose of it at frequent intervals during progress of work.

B. Wet down dry materials and rubbish to prevent blowing dust.

C. Keep volatile wastes in covered containers.

3. DISPOSAL OF WASTE MATERIALS: All material determined by the Contracting Officer to be waste shall become the property of the Contractor and shall be disposed of outside the park boundaries.

4. DISPOSAL OF ASPHALT PAVEMENT: Asphalt pavement removed during construction will be hauled to stockpile locations no further than 15 miles from Canyon Village.

5. DISPOSAL OF EXCESS FILL: Approved clean excess excavation material will be placed at the water treatment plant site and the tank site. Excess beyond this and unsuitable excavation material will be hauled to the disposal area which is approximately 5 miles towards Norris. The material will be placed and graded as approved by the Contracting Officer.

6. AIR AND WATER POLLUTION CONTROL:

A. Take all necessary reasonable measures to reduce air and water pollution by any material or equipment used during construction.

B. No burning of debris will be permitted inside the park.

C. Do not dispose of volatile wastes or oils in storm or sanitary drains, nor allow such materials to reach streams.

D. Do not allow waste materials to be washed into the bed of a stream.

E. When excavations are made, immediately utilize resultant loose earth by filling and compacting in place, or dispose of it off the site.

F. Sod or seed slopes as specified as soon as possible to prevent erosion and deposit of earth into storm sewer, drainage ditch, or stream. If it is impossible to prevent erosion, the Contracting Officer may require construction of sedimentation basins to prevent water pollution.

7. FIRE PREVENTION AND PROTECTION:

A. Hazard Control: Take all necessary precautions to prevent fire during construction. Provide adequate ventilation during use of volatile or noxious substances.

B. Spark Arresters: Equip all gasoline or diesel powered equipment used in potential forest or grass fire locations with spark arresters approved by the U.S. Forest Service. Written determination of areas and period of potential fire hazard will be issued by Contracting Officer.

C. Welding: No welding or cutting by torch shall be performed unless adequate fire protection is provided and maintained for the duration of the work in the area of operations.

D. Protection Equipment Required: Provide and maintain suitable fire protection equipment.

1. Chain saw operators shall carry 16-ounce, belt-type CO₂ pressurized fire extinguishers.

2. Furnish and have available for emergency use of each piece of equipment listed below, hand tools and/or equipment as follows:

- a. One shovel and one axe on each truck, personnel vehicle, tractor, and grader.
- b. One shovel and one back-pack 5-gallon water-filled tank with pump with each welder.
- c. One shovel for each gasoline-powered tool, such as chain saws, soil augers, and rock drills.

E. Familiarize all work crews with methods of reporting fires to the Yellowstone Park Fire Service.

F. In case of fire, immediately notify the Park Service of location and action taken.

G. Take immediate action with sufficient personnel from the project crew and with tools and equipment to suppress fires.

H. Designate a person in charge of fire suppression efforts until relieved by a Park Service Officer.

I. Building Safety: Smoking within the buildings or temporary storage sheds is prohibited. No welding or cutting by torch shall be performed unless adequate fire protection is provided and maintained for the duration of the work in the area of operations.

J. Building Protection: Protection Equipment Required: Provide and maintain suitable fire protection equipment. Furnish a minimum of one UL Class 2A, 2-1/2 gallon water type, stored pressure extinguisher, and one UL Class 10, Type I, 15 pound B:C carbon dioxide extinguisher for each 3,000 square feet of building area or major fraction thereof. Travel distance from any work station to the nearest extinguisher shall not exceed 100 feet.

8. REPAIR PARTS INVENTORY: The Contractor at all times shall maintain the following minimum repair parts inventory, above what is required to do the job. These are for emergency repairs only. If the Contractor damages an existing utility he shall make repairs to the satisfaction of the Contracting Officer. If the utility location is shown, was identified by the utility company, or was previously identified during construction the repair shall be made at no expense to the Government.

Any permanent repairs to asbestos cement pipe will be made by completely replacing the broken section of pipe with ductile iron pipe and transition couplings. Temporary repairs can be made as approved by the Contracting Officer.

A. 1 each - 4-inch, 6-inch, 8-inch, 10-inch, and 12-inch full circle repair clamps, Rockwell 227 or approved equal, in 15-inch and 30-inch widths for cast and ductile water lines.

B. 2 each - 4-inch, 6-inch, 8-inch, 10-inch, and 12-inch transition couplings for asbestos cement to ductile or to cast-iron, Rockwell 433 cast couplings or approved equal.

C. 2 each - 2-inch, 2-1/2-inch, and 4-inch full circle repair clamps, Rockwell 226 or approved equal in 7-1/2 and 15-inch widths for galvanized steel lines.

D. 2 each - 3/4-inch, 1 inch, 1-1/4-inch, 1-1/2-inch, and 2-inch steel couplings, Rockwell 411 or approved equal, for galvanized steel service lines.

E. 2 each - 4-inch, 6-inch, 8-inch, 10-inch, and 12-inch compression joint couplings, Calder or approved equal for repair of damaged sewer lines.

F. A pipe inventory according to the items on the bid schedule. The Contracting Officer will adjust inventory items and amounts as required by field conditions. 2 each - standard length of each size of each type of pipe shown in the bid schedule.

G. Hot-Scotch electrical repair kits, 8 required.

9. UTILITY LOCATION: Existing utilities and services shown are approximate. Not all utilities may be shown. The Contractor shall contact the utility companies and owners of other utilities including the Government and concessionaires for location information.

END

1. CLEANING:

A. Products: Use cleaning materials recommended by manufacturer of surface to be cleaned and follow directions on container.

B. Exterior Cleaning: Sweep paved surfaces; rake other surfaces or grounds. Clean building surfaces with recommended products.

C. Interior Cleaning: Vacuum clean interior building areas when ready for painting and continue vacuum cleaning as needed until acceptance of building.

D. Mechanical Equipment: Replace filters if heating or air conditioning units were operated during construction. If operated without filters, clean ducts, blowers, and coils.

E. Final Cleaning: Remove all tools, equipment, surplus materials, and rubbish. Repair marred surfaces and remove grease, dirt, stains, foreign materials, fingerprints, and labels from interior and exterior finished surfaces. Do any required waxing and polishing. At time of final inspection, project shall be thoroughly clean and ready for occupancy and/or use.

2. PROJECT RECORD DRAWINGS:

A. Using colored ink, make changes on a set of clean prints of original tracings. Indicate all changes and revisions to the original design which affect the permanent structures and will exist in the completed work. Reference underground utilities to semipermanent or permanent physical objects. Reference water, sewer, telephone, gas and electric lines to corners of buildings.

B. Keep record drawings current. Inspection will be made monthly. Certification of accuracy and completeness will be required on monthly submitted payment requisitions. Project record drawings are the property of the Government and shall be delivered to the Contracting Officer before Closeout.

3. SUBSTANTIAL COMPLETION AND FINAL INSPECTION: Submit written certification that project, or designated portion of project, is substantially complete and request, in writing, a final inspection. Contracting Officer will make an inspection within 10 days of receipt of request.

Should Contracting Officer determine that the work is substantially complete, he will prepare a punch list of deficiencies that need to be corrected before final acceptance, and issue a notice of substantial completion with the deficiencies noted.

Should Contracting Officer determine that the work is not substantially complete, he will immediately notify Contractor, in writing, stating reasons. After Contractor completes work, he shall resubmit certification and request for final inspection.

4. ACCEPTANCE OF THE WORK: After all deficiencies have been corrected, a Letter of Final Acceptance will be issued. If only designated portions of the project have been inspected, a Letter of Partial Acceptance will be issued for that portion of the work.

Acceptance may be given prior to correction of deficiencies which do not preclude operation and use of the facility; however, final payment will be withheld until all deficiencies are corrected.

Until receipt of Letter of Final Acceptance, Contractor shall be responsible for the work of this Contract.

5. OPERATING INSTRUCTIONS: After the equipment and systems are in complete operation, and at a time and duration set by Contracting Officer, Contractor shall arrange for qualified persons (as approved by the Contracting Officer) to instruct park personnel in the operation of the various elements of mechanical and electrical equipment and systems. Contracting Officer will determine who shall receive instruction. The Contractor will coordinate the instruction period so that instruction personnel are at the site during the same time period.

6. CLOSEOUT SUBMITTALS: Submit before final payment request.

A. Project Record Drawings: As specified above.

B. Maintenance Manuals: Furnish, in 8 copies, complete literature, operating instructions, and technical data on all specific items of mechanical and electrical equipment.

C. Guarantees and Bonds: As specified in individual sections.

D. Spare Parts and Materials: As specified in individual sections.

E. Keys and Keying Schedule: As specified in individual sections.

7. POST-CONSTRUCTION INSPECTION: Prior to expiration of 1 year from date of final acceptance, Contracting Officer will inspect project to determine whether corrective work is required. Contractor will be notified in writing of all deficiencies. In accordance with terms of the General Provisions, corrective work must start on noted deficiencies within 10 days of receipt of notification to Contractor.

END

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of the clearing of vegetation; removal of stumps, roots, and debris; disposal of unutilized materials; and related incidentals required to prepare the site for the contract work.

1-2 JOB CONDITIONS:

A. Work Limits: Areas where embankment is to be placed and the actual area where structures and pipeline trenches are to be located will be cleared and grubbed.

B. Landscape Preservation: Protect from injury all vegetation to remain. To minimize damage to such vegetation, fell trees to center of area to be cleared. Secure approval before cutting any trees. Paint damaged portion of trees with an approved asphalt base paint.

PART 2: MATERIALS None.

PART 3: EXECUTION

3-1 CLEARING: Remove trees in the immediate area of excavation and where approved by the Contracting Officer. Trim, as directed, low hanging and unsound or unsightly branches on trees and shrubs designated to remain.

In areas which will be disturbed but not excavated for structures or pipelines, and which will essentially remain at the same grade, prune woody shrubs to within 2 inches of the ground surface.

3-2 GRUBBING: When the height of the embankment is less than 3 feet from existing subgrade, remove all stumps, roots, and debris a minimum of 12 inches below the original ground. When the height of the embankment is 3 feet or more from existing subgrade, stumps may be cut flush and left in place. In embankment areas, backfill stump and root holes with approved material and compact before placing embankment material. In all excavation areas, remove stumps, roots, and debris a minimum of 12 inches below finish grade.

3-3 SALVAGE:

A. Trees and Limbs 8-inch Diameter and Larger: Trim, cut into 8-foot or less lengths, and stockpile where directed in the development area.

B. Slash, Brush and Vegetation: Chip and stockpile as designated by the Contracting Officer for later use for restoration of natural areas as mulch material.

3-4 DISPOSAL: Dispose of outside the park boundary all materials that cannot be utilized.

PART 4: MEASUREMENT AND PAYMENT

4-1 No separate measurement or payment will be made for this work. It will be considered a subsidiary obligation of the Contract under other work to which it relates.

END

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of the removal and disposal of fire hydrants, structures, old pavements, abandoned pipelines, and other obstructions and minor items as encountered, including salvaging of materials and backfilling of resulting trenches, holes, and pits.

It also includes demolition and removal of the temporary water treatment plant backwash pond; and the chlorination building and filter tank near the new .75 MG storage tank site.

1-2 JOB CONDITIONS: Do not remove culverts, and other drainage structures until arrangements have been made to accommodate traffic. Complete blasting, or other operations necessary for removal of an existing structure or obstruction, which may damage new construction, prior to placing the new work.

PART 2: MATERIALS None.

PART 3: EXECUTION

3-1 GENERAL: Raze, remove, and dispose of fire hydrants, structures, fences, and other obstructions indicated. Plug disconnected piping as called out. Carefully remove designated salvageable material; transport and store in approved locations. Fill cavities left by removal to level of the surrounding ground and thoroughly compact, as directed. Directions for execution of the work will be changed and supplemented by the Contracting Officer as necessary.

3-2 SALVAGED MATERIAL: All salvaged material is the property of the Park. Transport and stockpile as directed by the Contracting Officer.

3-3 WASTE MATERIAL: Contracting Officer will designate which items are waste material. Dispose according to Section 01560.

3-4 DEMOLITION OF THE FILTER TANK AND CHLORINATION BOILING AT THE EXISTING STORAGE TANKS, AND BACKWASH PONDS AT THE TEMPORARY WATER TREATMENT PLANT: Contracting Officer will direct the details of this work. At concrete lined backwash pond knock in and break up concrete as directed but preserve existing utilities. Regrade and backfill both ponds as directed, hauling away any accumulated sludge. Plug or reconnect piping as directed hauling away any accumulated sludge. Remove equipment from Chlorination Building at storage tanks and demolish structure. Plug or reconnect piping as directed.

Dismantle filter tank at storage tanks as directed so facility can be reused. Haul components to Mammoth and store as directed.

PART 4: MEASUREMENT AND PAYMENT

4-1 No separate measurement or payment will be made for this work. It will be considered a subsidiary obligation of the Contract under other work to which it relates.

END

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of all work which relates to explosives including receiving, handling, transporting, storing, distributing, priming, loading, firing, and disposal.

1-2 QUALITY ASSURANCE:

A. Regulatory Agencies: Codes, rules, regulations, and standards as established by U.S. Forest Service, Health and Safety Code (FSH) 6109.13; National Fire Protection Association (NFPA) No. 495, Code for the Manufacture, Transportation, Storage and Use of Explosives and Blasting Agents; Associated General Contractors of America (AGCA), Manual of Accident Prevention in Construction.

B. Legal Requirements: Comply with all applicable Federal, State, and local laws and regulations pertaining to the use, storage, and handling of explosives. It is the intent of these specifications to comply with such laws and regulations. In the event of inconsistencies between these specifications and the laws and regulations, the laws and regulations take precedence, subject to final determination by the Contracting Officer. Comply with the requirements of the National Park Service and procure all required permits.

1-3 JOB CONDITIONS:

A. Protection: The Contractor shall exercise the utmost care not to endanger life and property. Make proper use of blasting mats and other protective devices adopting whatever additional precautions are deemed necessary to prevent damage to trees, shrubs, other landscape features, buildings, utilities, monuments, and other structures. Make every effort to prevent damage to the natural and the constructed surroundings. Should damage occur, make restoration as required by the Contracting Officer.

B. Personnel: One competent, experienced person shall be specifically designated in charge of explosives. The designated person must present certification to the Contracting Officer that he has successfully completed a course in the handling and use of explosives, given by an accredited institution such as the U.S. Bureau of Mines, U.S. Forest Service or DuPont or other explosive manufacturing company. He shall exercise careful supervision of all work related to the use, storage, and handling of explosives. Permit only a minimum number of competent, experienced persons, consistent with efficient operation, to handle explosives. Exclude anyone demonstrating carelessness, incompetence, or inexperience from further handling of explosives.

PART 2: MATERIALS Provide as required.

PART 3: EXECUTION

3-1 GENERAL REQUIREMENTS: The Contractor shall give special attention to the following specific rules.

- A. Locate magazines in accordance with the American Table of Distances for Storage of Explosives and only at sites approved by the Contracting Officer.
- B. Magazines shall be bulletproof, fireproof, burglarproof, weather resistant, constructed with adequate screened ventilation and dry wood floors. Countersink all nails exposed to the interior of magazines.
- C. Do not store detonators with other explosives but in separate magazines.
- D. Magazines shall not be provided with artificial heat or lights.
- E. Securely lock magazines.
- F. Mark magazines and roads in area with appropriate caution and danger signs.
- G. Clear blast area of unnecessary personnel and equipment before delivery of any explosives to the site.
- H. Keep no more than a 1 day supply of explosives at or near the work site. Keep explosives in approved portable magazines in locations approved by the Contracting Officer.
- I. Use only wooden tamping bars for charging explosives into drill holes.
- J. Do not use electricity from light or power circuits for firing shots unless the electrical connection to the circuit is made within an enclosed switch box securely locked with switch in open position.
- K. Provide a positive warning system to give adequate warning in every direction immediately prior to firing explosives. Guard all access points to the blast area to halt personnel and vehicles a safe distance from the blast. Maintain intercommunication between guards and person firing the blast assuring the blast area is clear prior to firing.
- L. Provide special signs or signals at all access points including a warning to turn off radio transmitters whenever electric detonators are used.

PART 4: MEASUREMENT AND PAYMENT

4-1 No separate measurement and payment will be made for this work. It will be considered a subsidiary obligation of the Contract under other work to which it relates.

END

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of preparation, excavating, trenching, backfilling and surface restoration associated with the construction of pipelines, all structures and general embankments.

All material, equipment, supplies and accessories required are to be provided. All excavation will be open cut. Work items include clearing and grubbing, removal of obstructions, protection of trees and structures to remain, stripping and stockpiling topsoil, drilling and blasting, excavation, controlled stockpiling of excavated materials, cribbing and cofferdams, dewatering, backfill materials and construction, embankment materials and construction, foundation preparation, bedding preparation, scarification, finish grading, and incidental work.

It includes provision of imported borrow where unstable or undesirable soils are encountered and replacement called for by the Contracting Officer.

It also includes surface restoration including pavement replacement, curb replacement, path replacement, machine and hand grading and shaping, dressing with topsoil, fertilizer, seeding, and disposal of excess materials.

1-2 RELATED WORK SPECIFIED ELSEWHERE:

- Clearing and Grubbing - Section 02102
- Demolition - Section 02110
- Explosives - Section 02114
- Watering - Section 02233
- Aggregate Base Course - Section 02606
- Seeding, Fertilizing and Mulching - Section 02821
- Cast-in-Place Concrete - Section 03300
- Utility Line Marking - Section 15058

1-3 JOB CONDITIONS:

A. If unauthorized overexcavation occurs, the Contractor shall be responsible for the repair of the area by backfilling with approved bedding material and compacting to 95 percent maximum density (ASTM D698) for pipelines and 100 percent maximum density for structures.

B. Bidders are expected to examine the project to determine the character of materials to be encountered, trees to be removed or protected, and nature of the work in general.

C. All suitable excavated material shall be utilized for backfill and embankments prior to importing borrow material.

1-4 QUALITY ASSURANCE: References, American Association of State Highway and Transportation Officials (AASHTO) and American Society for Testing and Materials (ASTM).

1-5 EXCAVATION CLASSIFICATION: Excavation shall be categorized for payment purposes according to the following criteria:

A. Unclassified Excavation for Pipelines, Pipeline Connections, Vaults and meters: Excavation for pipelines, pipeline connections, service connections, meter vaults, manholes, pressure reducing and other small vaults, fire hydrants, drains and other items except for major structures such as treatment plants and storage tanks shall be unclassified. Excavation shall include materials of every description, and of whatever substances encountered, to the depths and of the areas required for the construction work. No classification will be made of the materials excavated either as to depth, nature, composition, hardness, or degree of water content.

B. Earth Excavation for Major Structures shall include all material not having properties required for classification as rock excavation; shall include all loose, broken, and/or laminated rock or stones and boulders which can be reasonably broken, plowed, and removed with power-driven excavating equipment, skillfully operated and having comparable capabilities of a normal excavating machine.

Soft sandstone, or similar material, which can be reasonably broken and removed by a trenching machine will not be classified or paid for as "Rock" excavation.

Unless otherwise stipulated, a "normal excavating machine" shall be a hydraulic track mounted backhoe with the following characteristics: weight not less than 43,000 lbs., horsepower not less than 130, heavy duty rock bucket with the smallest matched bucket size as recommended by the manufacturer for the particular model but not less than 3/4 cubic yards. When such a machine is operated for a 1/2 hour period by a skillful operator without interruption and cannot produce at a rate of more than 48 lineal feet of excavated trench (8-foot depth) per 8 hours or 48 cubic yards of excavation for structures per 8 hours, then the Contracting Officer shall approve the usage of blasting or other special methods such as hydraulic or pneumatic breakers (not just larger equipment). If the Contractor then uses blasting or other special methods, the excavated material will be classified as rock excavation. If the Contractor proceeds with his normal excavation equipment, it will be defined as earth excavation. Other than the above criteria, the Contracting office will have the sole power of deciding reasonable excavation and may for example allow rock excavation where conditions are close to the criteria above.

If the Contractor cannot remove the material as approved earth excavation then he should add the use of an approved ripper; payment for approved ripping will be one half the rate for rock excavation.

If the Contractor excavates with blasting or other special methods without the authorization of the Contracting Officer or if he does so to improve his progress of his own volition, then such excavation will be classified as earth. Soils conditions reflect that excavation at the water treatment plant will be classified as earth. If rock is encountered the unit rock price for the storage tank will be used as a maximum price for rock excavation at the plant.

C. Rock Excavation for Major Structures shall include all solid rock masses which cannot be reasonably broken, plowed, and removed with power-driven equipment specified above in "Earth Excavation," and boulders or stones which, because of size or position in the trench, require blasting for removal. Payment for blasted rock excavation shall only be made for volumes within trench limits specified below; except that payment for any one approved blasting operation, which is successful in the opinion of the Contracting Officer, shall be for not less than one cubic yard.

For payment purposes, the maximum authorized trench width shall not exceed one foot wider on each side of the pipe barrel or 6 feet outside the exterior face of the structure, and the maximum depth shall not be below 4 inches beneath the established elevation of the pipe bottom.

As rock excavation is encountered, the Contracting Officer must agree that such material to be excavated is rock. At the end of each day's work, the Contracting Officer, upon request, will calculate and inform the Contractor of the amount of rock excavated for payment purposes. If the Contractor does not agree to the quantities, he shall notify the Contracting Officer within one day's time.

PART 2: MATERIALS

2-1 GENERAL: All backfill material shall be approved before use. Material from project excavations shall be used for backfill and embankments. The backfill material shall be free from rubbish, large stones, clods, roots, brush, debris, frozen lumps of earth, or other objectionable material, and shall be moistened if required.

The amount of water used in compaction shall be sufficient to obtain the percent relative compaction required. The amount of water required may be varied by the Contracting Officer to meet conditions brought about by storms, drought, or other causes.

2-2 EXCAVATED MATERIALS: Use only approved excavated material for backfill. Excess excavated material for backfill will be transported and used in areas of deficiency.

2-3 STANDARD BACKFILL: No rocks larger than 8-inch will be allowed. Material in general will have minimal void content.

Travertine materials (limestone-like rock from thermal deposits) can be used for pipeline trench standard backfill if it is broken into pieces smaller than 3 inches and of a nature to allow placement. Travertine may not be used for structural backfill.

2-4 STRUCTURAL BACKFILL: No rocks larger than 1-1/2 inches. Material will have characteristics that allow compaction without excessive effort that lead to damage of structure or buried insulation.

2-5 SELECT BACKFILL FOR WATER AND SEWER LINES: Suitable material in which all material passes a 3/4-inch sieve except that up to 1-1/2-inch may be used for ductile iron pipe. Excavated material which meets this grading requirement may be used for select backfill.

2-6 BEDDING MATERIAL:

A. For Ductile Iron Pipe: Material which has a diameter no larger than 1-1/2 inches, and is approved by the Contracting Officer as suitable in terms of moisture content and structural properties.

Wherever travertine is encountered in the installation of a ductile iron pipe, it may be used for bedding material. Travertine materials may not be used for bedding material for any other type of pipe, conduit or cable. The travertine must be broken into particles less than 3/4-inches and graded and blended with smaller sizes such that there is a minimum of voids.

B. For other pipes and direct buried cable: Use graded sand, gravel or sandy soil in which all material passes a 1/2-inch sieve with not more than 10 percent passing a No. 200 sieve. Excavated material which meets this grading requirement may be used.

2-7 IMPORTED BORROW: All material shall be approved for suitability. Material shall be free from detrimental quantities of organic material such as leaves, grass, roots, peat, or muck. The material shall have suitable characteristics to allow compaction with normal compaction equipment and capable of supporting loads to be encountered at the particular location. The material shall meet the following gradation.

<u>Sieve Size</u>	<u>Total Passing by Sizes (Percentage by Weight)</u>
1-1/2 inch	100%
No. 4	No more than 50%
No. 200	No more than 10%

For pipeline, backfill from 2 feet above the pipe to 1.5 feet below the pavement. The 1-1/2-inch size requirement will be changed to an 8-inch maximum with the Contracting Officer's approval.

2-8 WATER: Clean, free from harmful substances.

2-9 RESTORATION MATERIALS:

A. Pavements and Curbs: Refer to 02606 for aggregate base course.

B. Landscape: Refer to 02821 for seeding.

C. Concrete Structures, Pavement and Curbs: Refer to 03300 for cast-in-place concrete.

D. Other Items: Contracting Officer will clarify as encountered. Materials for items shall be restored to equal or exceed preconstruction conditions.

PART 3: EXECUTION

3-1 PREPARATION:

A. Topsoil: In natural areas, strip all topsoil, or in the absence of topsoil, strip the top 4 to 6 inches of surface material and store separately from other excavated materials in stockpile areas designated by Contracting Officer.

B. Ground Surface Preparation: Prior to excavating or placing embankment, complete all clearing and grubbing operations. See Section 02102. Before placing any embankment, scarify ground surface to provide ample bond between old and new material.

C. Woody Plants in Natural Areas: See Clearing and Grubbing.

D. Roadways, Parking Areas, and Road Crossings: Cut existing pavement full depth to a true line before excavation.

E. The Contractor is to field verify by excavation the location of all utility crossings, service connections, connections to existing lines before proceeding with installation of affected pipelines and accessories.

3-2 TRENCH EXCAVATION:

A. General: Excavate trenches to lines, grades, and elevations indicated or staked in the field. Fine grade the trench bottom throughout and excavate to accommodate joints and connections so the barrel of the pipe will receive bearing pressure throughout its entire length.

B. Trenching Guidelines: For excavation, trench width and depth shall be as follows: width, ample to allow a minimum free working space of 1 foot on each side of pipe barrel, except when hand dug; width of hand-excavated trenches may be reduced providing approval is given, stability of soil is consistent with depth of trench required, and pipe can be satisfactorily installed to line and grade and properly backfilled; depth, as indicated or staked in field. Carry trenches in rock to a depth of at least 4 inches but not exceeding 12 inches below pipe bottom; hand excavate placements for thrust blocks at grade and trim sides straight upward to original ground. Pump off water which has been accumulated in low ground; and keep excavation drained of water.

C. If water is allowed to stand and the earth is softened, the earth must be completely dried or removed to firm material and the proper backfill placed before construction can proceed.

3-3 STRUCTURE EXCAVATION:

A. Excavation Dimensions: Provide 18 inches of clear working space between the exterior lines of the structure and the face of the excavation or shoring. In all cases, extend to solid bearing and below frost line.

B. Foundation Treatment: Clean all rock or other foundation surface of loose material and cut to a firm surface either level, stepped, or serrated as directed. Avoid excavation below the specified grade. If overexcavation occurs, backfill with select bedding material.

Upon completion of the general excavation for footings and slabs, the Contractor will be required to remove all material that in any way projects above the bottom of the footings or the undersides of slabs, and into the side walls.

C. Excavation Approval: When excavation has been completed for a structure, the Contractor shall notify the Contracting Officer, who will inspect the excavation. Place no concrete until the excavation is approved.

3-4 SHORING AND SHEETING:

A. Construct and maintain all shoring and sheeting necessary to protect the excavation, as needed for the safety of the employees and as required by applicable State and Federal laws.

B. Do not disturb or remove timber or other sheeting driven to a depth below the elevation of the top of the pipe or structure footing.

C. As directed, remove all other sheeting and shoring when safe to do so. Any portion wholly buried by earth and at a distance of at least 18 inches from any timber members of permanent structures need not be stripped.

3-5 DEWATERING: For all excavation, the Contractor shall provide suitable equipment to remove water, and he shall keep the excavation unwatered so that pipe, forming, and concrete work can be carried on under dewatered conditions. As a part of this Contract, and in coordination with the dewatering requirements of other excavation work on the project, the Contractor shall be responsible for handling and disposal of any excess water. Natural drainageways near the site may be used to the extent of their natural capacity if no erosion or other damage is encountered.

3-6 STORAGE OF EXCAVATED MATERIALS FOR PIPELINES:

A. Generally excavated material will be placed so that no amount will be lost and/or spoil terrain on the side slopes below the work area.

B. Along main roads, particularly the Grand Loop Road or roads that are the only access to facilities, one lane of traffic will be maintained.

C. In natural areas, place excavated materials close to the excavation and in as confined a configuration as possible. Where adjacent slopes are too steep to stockpile and/or at locations directed by the Contracting Officer, transport materials to special stockpile locations in nearby areas which have flatter slopes. As directed by the Contracting Officer, thin and or totally remove trees and vegetation in such special stockpile locations.

D. In turf areas, place excavated materials carefully and, at minimum, lay burlap over turf before stockpiling so as to minimize damage to existing turf.

3-7 STORAGE OF EXCAVATED MATERIALS FOR STRUCTURES:

A. Generally, follow 3-6 above.

B. The Contracting Officer will approve all placement of all excavated materials.

3-8 TRENCH BACKFILL:

A. Backfill trenches immediately after approval of the pipeline construction.

B. Water and Sewer Backfill: Use select backfill carefully placed in uniform layers not exceeding 6 inches in thickness to a depth of 1 foot over the top of the pipe. Place material and fill the area under the pipe haunches. Place each layer, moisten; then uniformly compact to 95 percent dry density (ASTM D698) by use of hand, pneumatic, or mechanical tampers exercising care to prevent lateral displacement. Use bedding material as indicated on the drawings for DIP in rock or where other types of pipe are used.

Moisten standard backfill above 1 foot over the top of the pipe and place in 8-inch layers. Compact to 95 percent dry density (ASTM D698) each layer with hand, pneumatic, or mechanical compactor. If travertine material is used for backfill, do not place in thicknesses exceeding 6 inches; use vibratory compaction. Puddling or flooding of trench for consolidation of backfill or use of wheel rolling by construction equipment will not be permitted.

C. Electric and Cable Trench: The same requirements will apply for electric and telephone cables as specified in Item B above. Sharp rocks which could cut the cable coating will not be used.

D. Roadways, Parking Areas, and Road Crossings: Use backfill placed in uniform layers not exceeding 8 inches in thickness for full trench depth and width, thoroughly compacted with mechanical tampers under optimum moisture conditions to 95 percent compaction, as determined by AASHTO T99, Method C.

If travertine material is used for backfill, do not place in lifts exceeding 6 inches; use vibratory compaction.

E. Natural Areas: As directed by the Contracting Officer, mound slightly as approved by the Contracting Officer at the surface to allow settlement to adjacent grades.

3-9 STRUCTURE BACKFILL:

Backfill can commence when approved by the Contracting Officer and appropriate to the structure.

Place backfill material in horizontal uniform loose layers not to exceed 8 inches. Bring each layer up uniformly on all sides of the structure and thoroughly compact using approved methods. Moisten backfill prior to placing to insure maximum compaction. Puddling or water flooding for consolidation of the backfill will not be permitted.

All backfill shall be consolidated by mechanical tamping in finished layers not to exceed 6 inches, until the dry density of the compacted material is not less than 95 percent of the laboratory maximum dry density in accordance with ASTM Specification Designation D698. All compacted backfill below any part of the structures shall be compacted to 100 percent maximum dry density.

Exercise care in placing and compacting backfill to minimize settlement and prevent any damage to walls, waterproofing, or other work in place. Bring the finished subgrade to elevations indicated and slope to drain water away from building walls.

3-10 EMBANKMENT:

A. General: Embankment is earth and rock material acquired from the new .75 MG storage tank site, hauled, placed and compacted as part of general site development of the water treatment plant, the raw water reservoir and the access road to the water treatment plant.

B. Rough Grading: Scarify and moisten existing ground. Remove any wet soils or other material objectionable to the Contracting Officer within the project site, such as the area which will become the raw water reservoir. Deposit loose fill in successive horizontal layers to a maximum depth of 8 inches under roads adjacent to structures or 12 inches under other areas. Spread evenly and compact each layer by uniformly rolling or tamping, using equipment as approved, to 95 percent maximum density at optimum moisture content (ASTM D698) for roads, reservoirs, or adjacent to structures, or 90 percent under other areas. Rough grade to within 4 inches of finished grade. Smooth and compact excavated and filled sections and adjacent transition areas leaving no irregular surface changes. Finish ditches and swales to drain readily. Slope subgrade evenly to provide drainage away from buildings at a minimum grade of 1/4 inch per foot. Provide roundings at top and bottom of banks and at other breaks in grade.

C. Rock Embankment: Rock embankment is defined as embankment constructed of materials with 50 percent or more by weight, at field moisture content, of particles larger than those passing a No. 4 sieve. Density requirement will not apply to portions of embankment defined as rock embankment.

D. Placing Rock Embankment: Place, spread and level rock embankment in 8-inch layers and fill the interstices with fine material to produce a dense compact embankment. In addition, a sheepsfoot roller capable of exerting a force of 250 pounds per inch of length of roller drum shall be in continuous operation during placement, each lift shall be compacted a minimum of three complete passes over its full width before placing the next layer. Other types of compacting equipment may be approved for use when in the opinion of the Contracting Officer satisfactory results can be obtained.

E. Oversize Rock: When the material to be placed consists predominantly of rock too large to be placed in 8-inch layers, the Contracting Officer may permit the material to be placed in thicknesses up to the average rock

dimension, but not in excess of 3 feet. Rocks larger than 8-inches in greatest dimension shall not be placed in the upper 13-inches of the sub-grade, except where the intent is to leave exposed rock as indicated on the drawings. In cases where exposed rock is called for, rock will be placed as directed by the Contracting Officer.

3-11 IMPORTED BORROW: At locations where unstable or undesirable conditions are encountered and as designated by the Contracting Officer, the Contractor will excavate and dispose of excavated materials from the project. This material will be replaced by imported borrow when excess material is not available from other portions of the job. This borrow will be placed and compacted according to the requirements of the item of work involved.

At the raw water reservoir and water treatment plant, material removed (such as wet soils) and replaced to final grade by excavated material from other project excavations (such as the tank or plant), will not be included as imported borrow. If, however, imported borrow from outside the park is utilized to replace excavated material, it will then be paid for as imported borrow when approved.

3-12 RESTORATION

A. Bituminous Pavements for Vehicular Traffic: Install a 12-inch layer of aggregate base course, ready for a 3-inch minimum layer of bituminous concrete pavement or place aggregate to match existing surface grade. Maintain surface to smooth condition free of potholes throughout construction period until accepted by Contracting Officer. Park will place asphalt.

B. Bituminous Pavements for Pedestrian Traffic Only: Install a 4-inch layer of aggregate base course, as directed. Park will place asphalt.

C. Concrete Structure, Pavement and Curbs: Restore all existing concrete structures to conditions equal to or exceeding existing structures.

D. Landscape Restoration in Natural Areas:

1. As the stockpiled excavated material is used for backfill, use care not to overexcavate into the underlying original topsoil, particularly along pipeline routes. Protect and prevent damage to vegetation, particularly trees and the area under the drip line of the tree. Hand rake as necessary to remove additional material.

2. Place previously stripped topsoil on all disturbed earth areas. Hand rake in areas inaccessible to construction equipment. Grade to produce a well-drained finish.

3. After alignment of subgrade, loosen and till to a depth of 5 inches by discing, harrowing, rototilling, or other approved methods.

4. Finish all slopes in accordance with the lines, cross sections, and slope rounding shown. The final slope surface shall be similar to that surface obtained by using a farm disk or harrow parallel (except along pipelines) to the contours and shall merge with the adjacent terrain without noticeable breaks, humps, or undulations.

5. Seed and mulch all disturbed natural areas.

6. Provide diversion bars or ditches of a 6-inch depth at 50 foot centers or as directed by Contracting Officer where work disturbs existing trails.

E. Gravel Roads and Parking Areas: Install a minimum of 5-inches of base course.

F. Other Items: Contracting Officer will clarify restoration of other minor items as construction proceeds. Such items must be restored to equal or exceed preconstruction conditions.

3-13 CLEANUP: Prior to final inspection and acceptance, remove all rubbish and excess materials and leave area in a neat, satisfactory condition.

3-14 SHRINKAGE AND MAINTENANCE: Contractor shall be responsible for the stability of all embankments until final acceptance, and for replacing any portions which have become displaced due to carelessness or negligence or due to damage resulting from natural causes.

PART 4: MEASUREMENT AND PAYMENT

4-1 No separate measurement and payment, except for the items below, will be made for this work. It will be considered a subsidiary obligation of the Contract under other work to which it relates.

4-2 IMPORTED BORROW: The unit of measurement for payment will be the cubic yard. Measurement will be by cross sectioning of the excavated volume of the trench zone of unstable or undesirable materials as designated by the Contracting Officer before placement of the imported borrow. Volumes will be computed by the average end area method. The work will include excavation, disposal of materials, imported borrow and placement. Quantities so measured will be paid for at the contract unit price.

4-3 ROCK EXCAVATION FOR STRUCTURES: The unit of measurement for payment will be the cubic yard. Measurement will be made by cross sectioning of the rock within the zone defined as 5-foot maximum horizontally outside the face of the named structure and vertically to the bottom of the lowest slab or as indicated on the drawings and by the Contracting Officer. The work will include blasting or special methods such as pneumatic or hydraulic breakers (See paragraph 1-5B, approved ripping will be paid at one half the unit price), excavation, breaking up as required to allow for backfill, disposal, and any related work. Quantities so measured will be paid for at the contract unit price.

END

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of pumping, distributing, and applying water required in backfilling or wherever necessary in the project.

PART 2: MATERIALS

2-1 WATER: Water will be government furnished without charge. The Contracting Officer will designate sources of water as he sees appropriate to the particular situation.

PART 3: EXECUTION

3-1 EQUIPMENT: Provide all necessary pumping equipment, piping, tanks, and water trucks. Equipment for soil moisture control will be approved by the Contracting Officer.

PART 4: MEASUREMENT AND PAYMENT

4-1 No separate measurement and payment will be made for this work. It will be considered a subsidiary obligation of the Contract under other work to which it relates.

END

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of placement of riprap and lined drain swales.

1-2 RELATED WORK SPECIFIED ELSEWHERE:

Excavation, Trenching, and Backfilling - Section 02221;
Corrugated Metal Pipe Culvert - Section 02523;
Ductile Iron Drain Pipe - Section 15074.

1-3 SUBMITTALS: In accordance with Section 01300. Submit mill certificates for filter material citing trade name of producer.

PART 2: MATERIALS

2-1 FILTER CLOTH: Use Poly-Filter produced by Carthage Mills, Inc., 124 West 66th Street, Cincinnati, Ohio 45126 or Mirafi 140 by the Ceeleanese Corporation, Box 1414, Charlotte, North Carolina 28232 or approved equal.

2-2 RIPRAP: Angular quarry stones, sound and hard, of durability to withstand exposure to water and weathering.

All stones shall be angular, each piece having its greatest dimension not greater than three times its least dimension. Grading requirements for riprap are as follows (approximate size assumes cubical shape):

<u>Weight of Pieces (lbs)</u>	<u>Approximate Size (in.)</u>	<u>Percent Smaller By Weight</u>
1,260	24	100
350	15	35-55
80	9	0-10

Stones for riprap shall be graded in order to minimize voids in the rock mass.

Color and appearance of exposed stone shall be selected to be unobtrusive with the surroundings. Rock may be obtained from excavations in the progress of work.

PART 3: EXECUTION

3-1 EXCAVATION: Excavate for placement of rock riprap lining and filter material as indicated, provide side slopes and positive drainage as indicated. Contracting officer to inspect excavation before placement of filter material.

3-2 FILTER MATERIAL: Place cloth loosely in the excavation as indicated. Overlap adjoining panels a minimum of 4 feet with the downstream panel underneath and staple. Use securing pins as recommended by filter cloth manufacturer to hold cloth continuously to excavation. After approval by the Contracting Officer, place an adequate thickness of gravel over the filter cloth to protect it from damage by placement of rock.

3-3 RIPRAP PLACEMENT: Machine place stones into position following details indicated. Place largest rocks at bottom of slope. Arrange by hand interlocking and form a substantial bond. Use spalls to fill voids. Tamp or ram in place any voids beneath the riprap on backside of embankment fill. Top of riprap is to be uniform and free from bulges, humps or cavities.

PART 4: MEASUREMENT AND PAYMENT

4-1 No separate measurement or payment will be made for this work. It will be considered a subsidiary obligation of the contract under other work to which it relates except for 4-2 below.

4-2 RIPRAP LINED DRAIN SWALES: The unit of measurement for payment will be the linear foot. Measurement will be the actual number of linear feet along the invert from the end of the pipe end treatment pay line to the end of the riprap swale outfall. Quantities so measured will be paid for at the contract unit price.

END

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of installation of corrugated metal pipe culverts and flared end sections.

1-2 RELATED WORK SPECIFIED ELSEWHERE: Excavation, Trenching, and Backfilling - Section 02221, and Riprap Lined Drain Swales - Section 02262.

1-3 SUBMITTALS: In accordance with Section 01300, submit certificates of compliance and manufacturer's literature. Submit shop drawings of all fittings.

PART 2: MATERIALS

2-1 CORRUGATED METAL PIPE: Pipe shall be fabricated from zinc-coated (galvanized) iron or steel sheets conforming to AASHTO Designation M 218 except as modified herein. The diameter or span by rise dimensions indicated on the drawings shall mean the nominal inside dimensions of the conduit. The widths of the laps and depths or corrugations shall be as specified in AASHTO Designation M-36. The pipe shall have the following minimum gage (specified thickness) for the sizes shown:

<u>Diameter (inches)</u>	<u>Gage Number</u>	<u>Specified Galvanized Thickness (inches)</u>	<u>Base Metal Specified Thickness (inches)</u>
21 and smaller	16	0.064	0.0598

2-2 DIMPLED COUPLING BANDS: The dimpled coupling bands shall be the same thickness as that used for the pipe and shall be at least 12 inches wide. The dimples shall conform substantially to the shape and depth of pipe corrugations and shall be in circumferential rows. Each row shall contain dimples so spaced as to effectively engage all corrugations of the pipe ends. All bands shall have at least two zinc coated bolts per connection, conforming to ASTM A 307, grade A, electroplated in accordance with ASTM A 154, Type RS, not less than 1/2-inch in diameter. The bands shall have end connection angles, conforming to ASTM A 35, zinc coated in accordance to ASTM A 153, not less than 2 inches by 2 inches by 3/16-inch by 11 inches, adequately fastened to the band.

2-3 FITTINGS AND SPECIALS: Fittings and specials shall be of the same material, coating, and wall thickness, including the same structural qualities, as the adjoining pipe.

Steel flared end sections shall conform to the drawings and shall be furnished complete with field-bolted toe plates.

2-4 REPAIR OF DAMAGED SPLICER COATINGS; Units such as tees, angles or bends on which the splicer coating has been burned by flame cutting and gas or arc welding, or otherwise damaged in fabrication or shipping, shall be wire-brushed and painted with two coats of Haltz-Rust HR-54-53 or equal conforming to Federal Specification TT-P-641 or as may be otherwise approved by the Contracting Officer.

Culverts, pipes, fittings, specials, etc., on which the splicer coating has been bruised or broken either in the shop or in shipping, or which shows defective workmanship, may be rejected.

PART 3: EXECUTION

3-1 INSTALLATION OF PIPE: Corrugated steel pipe is considered to be a flexible conduit and, therefore, special care must be taken during the bedding and backfilling operations. Installation and backfilling operations shall be in accordance with the recommended practices set forth in the "Handbook of Steel Drainage and Highway Construction Products," published by the American Iron and Steel Institute.

A. Bedding: All pipe shall be bedded with an approved on-site granular bedding material. The pipe shall be bedded true to line and grade with uniform and continuous support from a firm base. Blocking shall not be used to bring the pipe to grade.

The bedding material shall be placed and compacted to 90 percent standard Proctor density (AASHTO T-180) evenly on both sides of the pipe to a point 12 inches above the top of the pipe. Special care shall be taken to insure that all voids are filled beneath the pipe haunch and that the bedding material is properly placed and compacted to provide lateral restraint. The bedding trench sidewall shall be adequately braced, shored or sheeted as necessary to stabilize the trench walls. The bedding trench shall not be any wider than necessary for proper installation, pipe jointing and compaction of the bedding material. The bedding material shall be placed under haunches and around the pipe alternately in 6-inch layers on both sides of the pipe to permit thorough tamping and compaction. This material is placed alternately to keep it at the same elevation on both sides of the pipe at all times.

B. Backfilling: After the pipe has been properly installed and bedded, the remaining trench excavation shall be backfilled in the following manner. The first 2 feet of backfill placed over the bedding material shall be thoroughly compacted to 90 percent Proctor density (AASHTO T-180) with mechanical hand tampers prior to backfilling the remainder of the trench. A minimum cover of at least 4 feet over the top of pipe shall be provided before the use of wheel mounted mechanical tampers (free drop hammer), hydraulic tampers (hydraulic ram hammers) or other heavy tamping equipment will be permitted. Puddling or jetting will not be allowed.

C. Removal of Trench Protection: Extreme care shall be taken in the removal of cribbing, shoring, sheeting, etc., so as not to disturb previously constructed foundation, bedding and initial backfill. If it was necessary to

place or drive sheeting or other trench protection below the top of the pipe, the sheeting, snoring, etc., shall be cut off at a point 1 foot above the pipe and the remaining material shall be left in place. Removal of this portion could seriously jeopardize the side support necessary for "flexible conduits" and create excessive lateral soils pressures and pipe deflections.

D. Protection of Conduit During Construction: Maximum supporting strength in flexible conduits does not develop until the fill consolidates. Therefore excessive concentrated loads or heavy equipment on top of or along side of the pipe must be avoided.

It shall be the Contractor's responsibility to assure that excessive deflections of the pipe conduit do not occur during shipping, handling, installation or backfill operations and to provide temporary internal supports, such as strutting, bracing, etc. where necessary.

E. Maximum Allowable Deflection: The maximum allowable deflection of corrugated steel pipe, after installation and backfilling operations are completed, shall not exceed 5 percent of the pipe diameter. Any pipe segments exceeding the maximum allowable deflection shall be replaced by the Contractor at his expense.

3-2 RIPRAP END TREATMENTS AT FLARED END SECTIONS: Riprap will be required at both ends of all pipes. A 2-foot thick layer of riprap shall be installed according to the requirements of Section 02252. The riprap layer shall be a minimum of one pipe diameter wide around the complete circumference of the pipe or 2-feet, whichever is greater.

In addition, a riprap lined drainage swale shall be installed at both ends of the pipe for a distance equal to 5 feet plus the diameter of the pipe (example: total length of riprap lined swale below 36-inch pipe to be 8 feet). The riprap in the swale shall be three pipe diameters wide and shall conform to the geometry of the downstream channel, unless modified by the drawings or the Contracting Officer.

PART 4: MEASUREMENT AND PAYMENT

4-1 CORRUGATED METAL PIPE: The unit of measurement for payment will be the linear foot. Measurement will be number of linear feet along the center line actually installed. Excavation, backfill, and compaction will be considered subsidiary obligations. Quantities so measured will be paid for at the contract unit price.

4-2 FLARED END SECTIONS WITH RIPRAP: The unit of measure for payment will be each. Measurement will be number of sections for respective size of culvert completed in place. Excavation, backfill, compaction and installation of riprap as specified herein at end treatments will be considered subsidiary obligations. Quantities so measured will be paid for at the Contract unit price.

END

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of constructing a foundation course composed of crushed stone or gravel on prepared subgrade to lines, grades, and typical cross sections indicated for roadway repair. Also it will include base course for roadways at the water treatment plant or other locations.

1-2 RELATED WORK SPECIFIED ELSEWHERE: Excavating, Trenching, Backfill 02221, Watering - Section 02233.

1-3 QUALITY ASSURANCE: Standards, American Association of State Highway and Transportation Officials (AASHTO).

1-4 SUBMITTALS: In accordance with Section 01300, submit certificate from supplier, if materials are obtained from commercial source, certifying materials for aggregate base course shall meet the requirements of these specifications.

PART 2: MATERIALS

2-1 AGGREGATE: Clean, hard, durable fragments or particles of stone or gravel crushed to required size with filler of sand or other finely divided mineral matter. Composite base course material shall be free from vegetable matter and clay lumps.

A. Coarse Aggregate: AASHTO T96, percentage of wear of not more than 50 at 500 revolutions.

B. Fraction passing No. 40 sieve shall have a liquid limit not to exceed 25 and a plasticity index of not more than 6, as determined by AASHTO T89 and T90, respectively.

C. Material when prepared for compaction, inclusive of filler, shall meet following screen analysis requirements by weight:

Passing a 1-inch sieve	100 percent
Passing a 3/8-inch sieve	50 to 75 percent
Passing a No. 4 sieve	30 to 60 percent
Passing a No. 200 sieve	0 to 12 percent

2-2 FILLER: Finely divided mineral matter such as rock or slag dust, hydrated lime, hydraulic cement, or other suitable mineral matter free from organic impurities.

2-3 WATER: See Section 02233.

PART 3: EXECUTION

3-1 CONSTRUCTION METHODS: Place aggregate and filler in maximum 6-inch layers. Mix, shape, and compact before placing next layer.

3-2 WATERING: Use sprinkler tanks or other approved watering equipment. Apply water to subgrade; immediately spread base materials. Continue watering at uniform rate to sufficiently wet layers.

3-3 COMPACTION: Compact each successive layer. Begin compaction at edges of layer and continue in parallel overlapping lines until entire area is covered, minimum of 4 times for each layer. Final density of compacted layers shall be uniform over entire roadbed width. Compact to a minimum of 95 percent, as determined by AASHTO T130.

3-4 SURFACE FINISHING: Water surface and evenly spread loose stones prior to final rolling. Make 2 complete passes over area to embed stones. Correct soft spots developed during rolling. Start bituminous surfacing work on individual sections of compacted base course. Compacted base course surface shall be smooth and free from waves and other irregularities. Unsatisfactory portions of base course shall be torn up, reworked, relaid, and rerolled, including portions of base course showing raveling. Allowable tolerances, 1/2 inch.

PART 4: MEASUREMENT AND PAYMENT

4-1 No separate measurement or payment, except for base course for the new road at the water treatment plant, will be made for this work. It will be considered a subsidiary obligation of the Contract under other work to which it relates.

4-2 ROAD BASE COURSE: The unit of measurement for payment will be the square yard. Measurement will be according to the actual number of square yards installed within the indicated limits and as approved. Quantities so measured will be paid for at the Contract unit price.

END

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of providing fencing and gates around the backwash ponds and the raw water reservoir.

1-2 QUALITY ASSURANCE: ASTM, AASHTO, AWPA.

1-3 RELATED WORK SPECIFIED ELSEWHERE: Concrete - Section 03302.

1-4 SUBMITTALS: In accordance with Section 01300, submit shop drawings for the fence and each gate, showing complete fabrication details.

PART 2: MATERIALS2-1 REQUIREMENT FOR FENCING SYSTEM:

Fence system shall comply with the details shown on the drawings.

Woven wire fence shall conform to ASTM Designation A116 Design No. 1047-6-11 (farm) with Class 1 coating. Steel barbed wire shall conform to ASTM Designation A 121, 12-1/2 gage with Class 1 coating. All fence wire ties, brace wires, staples and other wire appurtenances shall be galvanized in accordance with ASTM A116, Class 1. Splices shall be approved and stronger than wire to be spliced.

"J" or "U" staples shall be 1-3/4-inch long by heavier gage than barbed wire with serrations to prevent pullout.

2-2 GATES:

A. Type, Shape and Size: As shown on drawings. All joints to be securely welded.

B. Fabric: Same as fence, provide extra fasteners as directed.

C. Hardware:

1. Latches: For single gates, a suitable form arrangement with padlock attachment furnished in malleable iron. For double gates, similar forks are to be mounted on a center drop bar which engages a center gate rest. A positive locking attachment between frames is to be provided.

2. Hinges: To be offset type to permit gate to swing back against fence. Hinges to be made of malleable iron and be of sufficient strength to carry more than weight of gate.

D. Gate Posts: Use galvanized steel posts weighing 9.1 lbs/ft. and having a 4 inch minimum outside diameter.

2-3 FENCE POSTS: Wood posts shall conform to the details and dimensions indicated on the plans. Wood posts shall be fir or pine, straight, sound and seasoned with ends sawed off square or as indicated. All knots shall be trimmed flush with the surface. Posts shall be peeled and shall be treated with either Pentachlorophenol, Creosote Oil or Creosote-Petroleum Solution meeting the requirements of AASHTO M133. Posts shall be treated by the empty cell method in accordance with American Wood-Preservers' Association standards except that the net retention shall be at least 5 pounds of preservative per cubic foot of post.

All line posts shall be 5-inch minimum diameter and 12-feet, 0-inches long. All end corner and line brace posts shall be 6-inch minimum diameter and 12-feet, 0-inches long. All posts shall be treated with Creosote, Creosote-Petroleum mix or "Penta" as per AWWPA.

Wooden stays shall be cedar. Sectional dimensions shall have a tolerance of $\pm 1/4$ inch.

PART 3: EXECUTION

3-1 CLEARING AND EXCAVATION: Cut all brush and vegetation flush with ground 4 feet wide on line of fence. Excavate line at major grade breaks to produce a smooth grade. Clear all dead or weakened trees which could fall and damage fence as directed by Contracting Officer.

3-2 POSTS:

A. Spacing: Set vertical and true to line on a smooth grade; space as follows:

Tangents	15 foot maximum
500 feet to 200 feet radius	8 foot maximum
Less than 200 feet radius	6 foot maximum

B. Hole Depth: 4 feet.

C. Thoroughly compact small size granular fill around each fence post in 3- to 4-inch layers with heavy tamping bars. Backfill gate posts with concrete.

3-3 BRACING: Use end and corner braces as indicated on the drawings and at all gate installations. Provide rigid tie from gate post to wooden fence posts.

Line braces shall be spaced at 400-foot intervals, where fencing is continuous and where end, corner, and line braces are not specified.

3-4 INSTALLATION:

Top and bottom wires of fence shall overlap 3 inches and be securely fastened with hog rings at 1-foot, 0-inches alternating intervals longitudinally.

Barbed wire shall be double wrapped and tied off at end posts, corner posts and line brace posts. Woven wire shall be single wrapped and tied off. Fence to be continued shall be restored in like manner.

Staples will be installed angled down. At minimum staple each wire crossing a post, except that every other wire between edge wires need not be stapled in continuous wire fabric. Contracting officer may call for extra staples.

Fence wire may be placed on either the road side or the field side of posts, depending on local conditions, i.e. on curves the wire should be placed on the side which would prevent tension on the staples. This will also apply where wind drift or other conditions would exert unusual pressure against the wire.

Stays, where used, shall rest on the ground and be wired and stapled on the ground.

At locations where breaks in a run of fencing are required, at intersections with existing fences, or at ditch, canal, or channel crossings, appropriate adjustments in fence alignment and/or post spacing shall be made to satisfy the requirements for the type of closure indicated or the conditions encountered.

The tops of all posts shall be set to the required grade and alignment. Cutting of the tops or bottoms of treated timber posts will be allowed only with approval. Posts cut in the field shall have the cut surfaces protected with 2 coats of hot creosote or a 5 percent pentachlorophenol-in-oil solution. When the cut surface is above ground the treating solution to be used shall be the same type as was used in the original treatment.

Wire or fencing of the size and type required shall be firmly attached to the posts and braces in the manner indicated. All wire shall be stretched taut and be installed to the required spacing.

3-5 GATES: Install plumb with tops of posts level with each other. Adjust hinges and bracing, allowing gate to hang level and swing freely. Set socket for the cane or foot bolt in concrete, fitting plunger pin properly in socket.

PART 4: MEASUREMENT AND PAYMENT

4-1 FENCE: The unit of measurement for payment will be the linear foot. Measurement will be the number of linear feet from outside to outside of end posts. Work will include clearing and grubbing for trees and materials and work necessary to complete the fence. Quantities so measured will be paid for at the Contract unit price.

4-2 DOUBLE GATES: The unit of measurement for payment for a 16-foot wide double gates will be each. Measurement will be as a single unit for each double gate in place. Quantities so measured will be paid for at the Contract unit price.

END

PART 1: GENERAL

1-1 DESCRIPTION: The work of this section consists of fertilizing, seeding, and mulching, all disturbed ground from pipeline and structure excavation.

1-2 RELATED WORK SPECIFIED ELSEWHERE: Excavation, Trenching, and Backfill 02221.

1-3 QUALITY ASSURANCE: Western Fertilizer Handbook and manufacturers' printed recommendations. Committee on Soil Improvement of the California Fertilizer Association (CFA).

1-4 SUBMITTALS: In accordance with Section 01300, submit 1 cubic-foot of mulch sample for approval.

1-5 PRODUCT HANDLING:

A. Seed: Deliver in acceptable condition in original, unopened containers.

B. Fertilizer: Deliver in original, unopened containers with analysis, type and trade name attached.

1-6 GUARANTEE INSPECTION: Seeded areas found to be deficient shall be re-seeded with same material as originally specified.

PART 2: MATERIALS

2-1 SEED: Seed which has become wet, moldy, or otherwise contaminated or damaged in transit or in storage will not be acceptable. A seed mixture consisting of the following kinds of seed with corresponding percentage by weight shall be used:

- (1) Agropyron Riparium (Stream Bank Wheat Grass) 50 percent
- (2) Agropyron Dasy-Stachyum (Thick Spike Wheat Grass) 50 percent

2-2 FERTILIZER: Use 40 pounds of Nitrogen per acre and 100 pounds of phosphorous per acre. Do not use potassium.

In areas where mulch is used an additional application of nitrogen is required. If seeding takes place in the fall the additional application will be made the following spring. Otherwise, the additional application will be made three months after initial application. Use 50 pounds of nitrogen per acre.

2-3 MULCH: Natural mulch consisting of slash, brush and vegetation previously chipped and stockpiled; and clean straw, free from noxious weed seed and other harmful elements.

2-4 JUTE MESH:

A. Jute. The blanket shall consist of heavy jute mesh of a uniform open plain weave of unbleached single jute yarn. The yarn shall be of a loosely twisted construction having an average twist or not less than 1.6 turns per inch, and shall not vary in thickness by more than one-half its normal diameter. The jute mesh shall be furnished in approximately 90-pound rolled strips and shall meet the following requirements:

Length - approximately 75 yards.

Width - 43" plus or minus 1". 73 warp ends per width of cloth. 41 weft ends per yard. Weight of cloth to average 1.22 pounds linear yard with a tolerance of plus or minus 5%.

B. Pins and Staples. Pins or staples shall be made of wire .091" or larger in diameter.

"U" shaped staples have legs 6" long and a 1" crown. The "I" shaped pins shall have a minimum length of 8" after bending. The bar of the "I" shall be at least 4" long with the single wire end bent downward approximately 3/4".

PART 3: EXECUTION

3-1 BED PREPARATION: Thoroughly loosen soil to a minimum depth of 6 inches. Spread fertilizer evenly and incorporate to full depth by disking or rototilling. The incorporating machine shall pull a drag or other device to keep area smooth. Maintain grading and drainage patterns.

3-2 SEEDING: The Contractor shall hand broadcast with a cyclone seeder. After applications of seed, the seed shall be covered 1/2 to 1-inch by means of a chain harrow or handrake. The seed mixture specified shall be sown at the rate of 1.50 pounds of pure live seed (PLS) per 1,000 square feet on slopes less than 4:1 and double the rate on steeper slopes. The formula to be used for determining the quantity of PLS shall be: Pounds of seed x (purity x germination) = pounds of PLS.

3-3 MULCHING: Immediately after the seed is covered, spread natural mulch evenly. Augment with straw to a uniform depth of 2 inches. On slopes greater than 3:1, secure mulch in place by use of jute netting.

3-4 JUTE MESH: The jute mesh shall be applied in the direction of the flow of the water, and lapped approximately one foot. On slopes, the blankets may be applied either horizontally or vertically to the slope as directed by the Contracting Officer. The jute mesh shall be stapled down at four-foot intervals on centers, except at corners, and below drop structure where the Contracting Officer may direct that it be stapled at two-foot intervals.

The Contractor shall also be responsible for maintaining and caring for the jute mesh for a 7-week period. All jute mesh that is disturbed during this period will be replaced and/or restaked by the Contractor.

3-5 CLEANUP: Upon completion of work, remove debris and leave area in clean, acceptable condition.

3-6 TIMING: Seed only in fall or when approved by Contracting Officer.

PART 4: MEASUREMENT AND PAYMENT

4-1 No separate measurement or payment will be made for this work. It will be considered a subsidiary obligation of the Contract under other work to which it relates.

END

